



**CHILDREN'S EDUCATION SOCIETY (Kegd.)**  
**THE OXFORD COLLEGE OF ENGINEERING**  
 (Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi.  
 Approved by A.I.C.T.E. New Delhi.  
 Recognised by UGC Under Section 2(f)  
 Bommanahalli, Hosur Road, Bangalore - 560 068.  
 Ph: 080-61754601/602, Fax: 080 - 25730551  
 E-mail: enggprincipal@theoxford.edu Web: www.theoxfordengg.org

**Event Brochures and reports professional development training  
 programmes/administrative training programmes organized for Teaching Staff & Non-  
 teaching Staff**

### Index

Sl.No.	Particulars	Page No.
<b>2016-17</b>		
1.	<b>Event Brochures and reports on professional development training programmes organized by the Institution for Teaching Staff</b>	
a.	3-day workshop on Renewable Energy and Grid Integration Challenges and Issues	3 - 9
2.	<b>Event Brochures and reports on administrative training programmes organized by the Institution for Non-Teaching/Technical Staff</b>	
a.	MS Office Training	9 - 10
b.	Housekeeping Awareness Program	11 - 14
<b>2017-18</b>		
3.	<b>Event Brochures and reports on professional development training programmes organized by the Institution for Teaching Staff</b>	
a.	Internet of Things	15 - 20
b.	Two days FDP on know your Intellectual Property Rights in association with DST-TYPHAC, Government of India, KSCST and VTU, Karnataka	21 - 22
c.	Workshop on Genomic Informatics sponsored by Bionivid Pvt. Ltd., Bengaluru	23 - 30
d.	Binding affinity and ADMET in drug discovery and candidate selection	31 - 32
e.	AICTE Sponsored FDP on World Class new product design and manufacturing.	33 - 68
4.	<b>Event Brochures and reports on administrative training programmes organized by the Institution for Non-Teaching/Technical Staff</b>	
a.	Typing Skills-Learn typing with shortcut keys	69 - 70
b.	Hygiene, Quality and Cleanliness in Mess and Canteen	71 - 74
<b>2018-19</b>		
5.	<b>Event Brochures and reports on professional development training programmes organized by the Institution for Teaching Staff</b>	
a.	Python and Machine Learning	75 - 79
b.	Workshop on Mentor Graphics & Xilinx (ECE)	80 - 83
6.	<b>Event Brochures and reports on administrative training programmes organized by the Institution for Non-Teaching/Technical Staff</b>	
a.	Time Management Skills	84 - 89
b.	Electrician, plumber & gardener awareness	90 - 82
c.	Discipline awareness program for college security people	93

**PRINCIPAL**  
 The Oxford College of Engineering  
 Bommanahalli, Hosur Road  
 Bengaluru - 560 068



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**2019-20**

7. **Event Brochures and reports on professional development training programmes organized by the Institution for Teaching Staff**

a. Python Programming 94 - 95

8. **Event Brochures and reports on administrative training programmes organized by the Institution for Non-Teaching/Technical Staff**

a. Balancing personal and Professional life 96 - 97

b. Training in Internet surfing 98 - 99

**2020-21**

9. **Event Brochures and reports on professional development training programmes organized by the Institution for Teaching Staff**

a. Advances in Artificial Intelligence and Machine Learning 100 - 124

b. Advancements in Artificial Intelligence and Machine Learning 125 - 126

c. FDP on Recent Trends in Photonics 127 - 152

d. FDP on Recent Trends in Electrical Engineering 151 - 185

e. Two weeks Faculty Development Program Phase 1 titled "Bioinnovation, Patenting and Entrepreneurship Opportunities in Biotechnology for Sustainable Environment" 186 - 198

f. Two weeks FDP Phase 2 on Bio innovation, Patenting and Entrepreneurship Opportunities in Biotechnology for Sustainable Environment 199 - 232

g. Short term training program (STTP-1) on Recent Trends and Challenges for NPD 233 - 255

h. Short term training program (STTP-2) on Recent Trends and Challenges for NPD 256 - 277

i. Short term training program (STTP-3) on Recent Trends and Challenges for NPD 278 - 283

10. **Event Brochures and reports on administrative training programmes organized by the Institution for Non-Teaching/Technical Staff**

a. Communication Skill Training 284 - 285

b. Sanitization of Surroundings during Covid Pandemic for attenders and Sweepers 286 - 288

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2016-17

**3-day workshop on Renewable Energy and Grid integration Challenges and Issues**



**DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**  
**THE OXFORD COLLEGE OF ENGINEERING**

Hosur Road, Bommanahalli, Bengaluru-560 068

Website: www.theoxford.edu Email : enghodeeee@theoxford.edu

(Approved by AICTE, New Delhi, Accredited by NBA, NAAC New Delhi  
& Affiliated to VTU, Belgaum)

**Three Day Workshop on**

**"RENEWABLE ENERGY & GRID INTEGRATION  
CHALLENGES AND ISSUES"**

**20<sup>th</sup> April 2017 to 22<sup>nd</sup> April 2017**



**Organized By**

**DEPARTMENT OF EEE , In Association with ISTE Students Chapter**

**THE OXFORD COLLEGE OF ENGINEERING**

Bommanahalli, Hosur Road, Bangalore-560068





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## General information

### "Vidya Sarvatra Shobhate"

The Oxford Group of Educational Institutions Established in the year 1974 under the aegis of Children's Education Society (Regd.) has proved a beckon to knowledge seeker not only all over the country but also all over the world. It made a humble beginning with 24 students and 2 teachers, but during the last four decades, The Oxford Group has seen an immense growth of establishing Medical, Engineering, Dental Institutions under the great guidance and leadership of Sri S. Narasa Raju (Late) and Sri S.N.V.L.NarasimhaRaju.

Today, The Oxford Group of Institutions has 32 Institutes with more than 18,000 students and 2,500 faculties, in more than 85 academic streams from Pre-Nursery to Post-Graduate & Doctoral courses including Medical Science, Dentistry, Nursing, Pharmacy, Physiotherapy, Engineering, Computer Education, Management, Life Sciences and Law. Within an intensely competitive and disciplined environment, the schools and colleges have adopted a dynamic, global, high quality, creative and communicative approach in education as well as research and development. Keeping abreast with modern Technologies & developments, the Institutions are constantly restructuring the infrastructure as well as its laboratory facilities, research, consultancy and education/training facilities to meet the global challenges.

#### About EEE Department :

The Department of Electrical and Electronics Engineering, was started in the year 2001. It offers one Under-Graduate programme (B.E.), two Post-Graduate programmes (M.Tech. in Power Electronics , Computer Applications in Industrial Drives) and also research programmes ( Ph.D.) in the various fields of Electrical and Electronics Engineering. the department has grown not only in terms of student and faculty strength, but also in improving the laboratory facilities for the teaching and research purposes. Thus, the department has dedicated and state of the art teaching / research laboratories. The department is reaccredited by NBA for three years from 2015-2018. The faculty members have strong sense of responsibility to provide the finest possible education for both graduate and undergraduate students. The academic strength of the faculty is reflected by the alumni, many of whom are in the top echelons of industry and academia both in India and abroad.

Grid connected solar power generation is an new concept in the country. Very few grid connected solar PV power plants have been set up.

Experienced man power to design, construct, manage and maintain grid connected solar power plants is not available in country.

Training and education including Hands on training and workshops are aspects is necessary to be imparted.

This workshop program is set up jointly by the Oxford College of Engineering (EEE dept) with an objective to fulfill the need for trained man power in Grid connected power plants.

#### Objective:

The objective of this program is to build man power capability at technical and operation level for grid connected solar power generation, through training, education and Hands on Workshops at operational solar PV grid connected plant to generate trained and qualified man power.

#### Target Audience :

- UG and PG students
- Faculty members who are doing research on solar (PV), wind domain.

#### Speakers:

**Dr. H. NAGANAGOUDA**  
Director, National Training centre for solar technology, KPCL.

**Mr. M.K. NARAYAN**  
Rtd. General Manager, Exide Batteries.

**Mr. SHYAM SUNDAR**  
Country head, studer inverters.

#### Course overview:

- An overview of Renewable energy (RE) forms.
- Site selection and system design
- Inverters ,charge controllers, battery banks
- Sizing of solar systems
- Installation, commissioning, operation and maintenance standards
- Safety in installation and commissioning
- Quality management , grid connectivity
- On site visit to solar PV module and Hydro power plant

#### Workshop Fees

UG & PG Students : 750/- INR  
Faculty Members : 1000/-INR

#### Chief Patron:

Shri. S.N.V.L.Narashimha Raju  
President-CES The Oxford Group of Institutions

#### Chief Convenors :

1. Dr. R.V.Praveena Gowda Principal - TOCE
2. Dr. R.J.Anandhi Vice Principal- TOCE

#### Co-ordinators:

1. Prof. Deepa . R
2. Prof. Swapna . M
3. Prof. Thiruvona Sundari .D
4. Ms. Chandrakala K N (PG Student Co-ordinator)

#### Contact Details:

**Jayakumar .N**  
Assoc. Prof/EEE  
TOCE, Bangalore-68.  
8050837275  
E-mail: enghodeee@theoxford.edu





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**With Gracious Blessings from**

**(Late )Shri.S.NarasaRaju**

**Founder Chairman**

*Children's Education Society,  
Bangalore*

**Shri. S.N.V.L. NarasimhaRaju**

***The Chairman***

*Children's Education Society,  
Bangalore*

**Department of Electrical & Electronics Engineering**

**Cordially invite you for the**

**Inauguration of**

***Three Day Workshop***

***on***

**"RENEWABLE ENERGY & GRID INTEGRATION**

**CHALLENGES AND ISSUES"**

**Chief Guest : Dr. H. Naganagouda, Director,  
National Training Centre for Solar Technology, KPCL**

***On 20<sup>th</sup> April 2017( Thursday ) at 10.00 A.M***

**Venue : - New Building, IV Floor- SEMINAR HALL**

***Presided by***

**Dr.R.V.Praveena Gowda**

**Principal, TOCE**

***Students & Faculty members-EEE***



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## THREE DAY WORKSHOP ON

"RENEWABLE ENERGY & GRID INTEGRATION CHALLENGES AND ISSUES"

20<sup>TH</sup> APRIL TO 22<sup>ND</sup> APRIL 2017

Venue : NEW BUILDING IV FLOOR SEMINAR HALL ( ISE)

### Schedule

Schedule

Day & Date	Timings	Subjects to be covered	Name of the Resource Person
Day1 20/4/2017	9.00 to 9.45am	Registration	Dr.H.NAGANAGOUDA  Contact No: 08748899429 Email: hnaganagouda@gmail.com
	9.45 to 10.45am	Inauguration	
	10.45 To 11.00am	Tea Break	
	11.00 to 1.00 pm	<u>Technical Session 1</u> An overview of energy, RE sources	
	1.00 to 1.45 pm	Lunch Break	
	1.45 to 2.45 pm	<u>Technical Session 2</u> Design of roof top solar power plant system grid connected with net metering	
	2.45 to 3.00 pm	Tea Break	
	3.00 to 4.00 pm	<u>Technical session 3</u> Design of solar grid connected power plant systems	
Day2 21/4/2017	Site visit to Solar 5 MW & 10 MW Power Plant		
Day3 22/4/2017	9.15 to 10.45am	<u>Technical Session 1</u> Batteries & its applications	Mr. M.K.NARAYAN  Contact No:9845499294 Email id: narayanbg@yahoo.com
	10.45 to 11.00am	Tea Break	
	11.00 to 1.00 pm	Continuation	
	1.00 to 1.45 pm	Lunch Break	
	1.45 to 2.45 pm	<u>Technical Session 2</u> Fundamentals of inverters, types, design/Sizing of inverter charge controller	Mr. SHYAM SUNDAR  Contact No: 994580111 Email id: shyam.sundar@studer-innotec.com
	2.45 to 3.00 pm	Tea Break	
	3.00 to 4.00 pm	Discussion & Valedictory Function	





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## KPCL

ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ನಿಗಮ ನಿಯಮಿತ

KARNATAKA POWER CORPORATION LTD.,

(A premier power generating company of Government of Karnataka)

CIN U85110KA1970SGC001919

ಸಂಖ್ಯೆ: ಎ1ಎ6 ಎ ಸಿಸಿ:28 | 160

20-04-2017

ಇವರಿಗೆ:

ಪೋಪ್ತೆಸರ್ & ಹೆಚ್.ಬಿ.ಡಿ.

ಡಿ ಆಕ್ಸ್‌ಫರ್ಡ್ ಕಾಲೇಜ್ ಆಫ್ ಇಂಜಿನೀಯರಿಂಗ್

ಬೊಮ್ಮನಹಳ್ಳಿ, ಹೊಸೂರು ರಸ್ತೆ,

ಬೆಂಗಳೂರು-560 068

ಮೊಬೈಲ್:80506 28377

ಮಾನ್ಯರೇ,

ವಿಷಯ: ಶಿವಸಮುದ್ರಂ (ಬ್ಲಾಕ್)ನಲ್ಲಿರುವ ಸೋಲಾರ್ ಪೋಟೋ ವೋಲ್ಟಾಯಿಕ್

ಪ್ಲಾಂಟನ್ನು ಸಂದರ್ಶಿಸಲು ಅನುಮತಿ - ಕುರಿತು.

ಉಲ್ಲೇಖ: ನಿಮ್ಮ ಪತ್ರ ಸಂಖ್ಯೆ: TOCE/EEE/2017-18 ದಿನಾಂಕ:18.04.2017.

\*\*\*\*\*

ಯೋಜನಾ ಪ್ರದೇಶಗಳನ್ನು ಸಂದರ್ಶಿಸಲು ತಾವು ಬರೆದುಕೊಂಡ ಉಲ್ಲೇಖ ಪತ್ರದಲ್ಲಿ ತಿಳಿಸಿರುವಂತೆ, ಮಂಡ್ಯ ಜಿಲ್ಲೆಯ ಮಳವಳ್ಳಿ ತಾಲ್ಲೂಕಿನ ಶಿವಸಮುದ್ರಂ (ಬ್ಲಾಕ್)ನಲ್ಲಿರುವ ಸೋಲಾರ್ ಪೋಟೋ ವೋಲ್ಟಾಯಿಕ್ ಪ್ಲಾಂಟನ್ನು ಸಂದರ್ಶಿಸಲು ದಿನಾಂಕ:21.04.2017ರಂದು ನಿಮ್ಮ ಕಾಲೇಜಿನ ಅಂತಿಮ ವರ್ಷದ ಬಿ.ಇ. ಎಲೆಕ್ಟ್ರಿಕಲ್ & ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್ ವಿಭಾಗದ 95 ವಿದ್ಯಾರ್ಥಿಗಳು ಹಾಗೂ ನಾಲ್ವರು ಉಪನ್ಯಾಸಕರು/ಸಿಬ್ಬಂದಿ ಸೇರಿ ಒಟ್ಟು ತೊಂಬತ್ತೊಂಬತ್ತು ಸದಸ್ಯರಿಗೆ ವೀಕ್ಷಿಸಲು ಈ ಮೂಲಕ ಅನುಮತಿ ನೀಡಲಾಗಿದೆ. (ಜಲವಿದ್ಯುತ್ ಉತ್ಪಾದನಾ ಕೇಂದ್ರಕ್ಕೆ ತಾಂತ್ರಿಕ ಕಾರಣದಿಂದ ಅನುಮತಿ ನೀಡಲಾಗುತ್ತಿಲ್ಲ).

ಈ ಅನುಮತಿಯು ಕೆಳಗಿನ ನಿಬಂಧನೆಗಳಿಗೆ ಒಳಪಟ್ಟಿರುತ್ತದೆ.

- 1) ಸಂಸ್ಥೆಯ ಮುಖ್ಯಸ್ಥರಿಂದ ಪಡೆದಿರುವ ಗುರುತಿನ ಚೀಟಿಯನ್ನು (Identity card) ಹಾಜರು ಪಡಿಸಲು ಸೂಚಿಸಲಾಗಿದೆ. ಗುರುತಿನ ಚೀಟಿ ಇಲ್ಲದಿದ್ದ ಪಕ್ಷದಲ್ಲಿ ಮುಖ್ಯಸ್ಥರಿಂದ ದೃಢೀಕರಿಸಿರುವ ವಿದ್ಯಾರ್ಥಿಗಳ ಮತ್ತು ಉಪನ್ಯಾಸಕರ ಹೆಸರುಗಳ ಪಟ್ಟಿಯನ್ನು ಕಡ್ಡಾಯವಾಗಿ ಹಾಜರು ಪಡಿಸಲು ಸೂಚಿಸಲಾಗಿದೆ ಹಾಗೂ ಆ ಪಟ್ಟಿಯಲ್ಲಿರುವವರು ಭೇಟಿಯ ಪೊರೆಯಿಂದ ದೃಢೀಕರಿಸಬೇಕು. ಇಲ್ಲದ ಪಕ್ಷದಲ್ಲಿ ಅನುಮತಿಯನ್ನು ನಿರಾಕರಿಸಲಾಗುವುದು. ವಿದೇಶೀಯರಿಗೆ ಪ್ಲಾಂಟನ್ನು ಸಂದರ್ಶಿಸಲು ಅನುಮತಿ ನೀಡಲಾಗುವುದಿಲ್ಲ.
- 2)ಯೋಜನಾ ಪ್ರದೇಶದಲ್ಲಿ ಯಾವುದೇ ಸ್ಥಳಗಳನ್ನು ವಿದಿಯೋ/ಮೊಬೈಲ್/ಕ್ಯಾಮರಾಗಳಲ್ಲಿ ಸೆರೆಹಿಡಿಯುವುದನ್ನು ನಿಷೇಧಿಸಲಾಗಿದೆ.

ಸಂದರ್ಶಿಸುವ ತಂಡವು ಪ್ಲಾಂಟನ್ನು ಪ್ರವೇಶಿಸಿದ ನಂತರ ಭೇಟಿಯ ವ್ಯವಸ್ಥೆಗಾಗಿ ಕಾರ್ಯನಿರ್ವಾಹಕ ಇಂಜಿನೀಯರ್ (ವಿದ್ಯುತ್), ಕೆಪಿಸಿಎಲ್, ಶಿವಸಮುದ್ರಂ ಇವರನ್ನು ಸಂಪರ್ಕಿಸುವುದು.

ವಂದನೆಗಳೊಂದಿಗೆ,

ತಮ್ಮ ವಿಶ್ವಾಸಿ,

ಕರ್ನಾಟಕ ವಿದ್ಯುತ್ ನಿಗಮ ನಿಯಮಿತದ ಪರವಾಗಿ,

ಎಸ್.ಎನ್.ಭಾಸ್ಕರ್

ಉಪ ಪ್ರಧಾನ ವ್ಯವಸ್ಥಾಪಕರು(ಕಾರ್ಪೊರೇಟ್ ಕಮ್ಯುನಿಕೇಷನ್)ಶಿವಮೊಗ್ಗ

EECS/LO/2007)

FL

Maybe permitted to visit the solar plant  
Shakthi Bhavan, # 82, Race Course Road, Bangalore-560 001. Tel. : 080-2225 6568 Fax : 080-2225 2144  
E-mail : kpclicccmpa@karnatakapower.com Website : www.karnatakapower.com

'ಶಕ್ತಿ ಭವನ', ನಂ. 82, ರೇಸ್ ಕೋರ್ಸ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು-560 001. ದೂರವಾಣಿ: 080-2225 6568 ಫ್ಯಾಕ್ಸ್: 080-2225 2144  
Tel. : 080-2225 6568 Fax : 080-2225 2144  
E-mail : kpclicccmpa@karnatakapower.com Website : www.karnatakapower.com



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Date: 21-04-17

TO,

KPCL

SHIVANASAMUDRA

KARNATAKA

FROM,

HOD, EEE DEPT

THE OXFORD COLLEGE OF ENGINEERING

BANGALORE

Respected Sir,

**SUBJECT:** Requesting to allow students to visit Solar Photovoltaic power plant

As per above subject, the Student

**USN:**

Studying in our college in 3<sup>rd</sup> year BE (EEE DEPT). He/She has lost the College ID card. Please allow him to visit the plant. Please do the needful and oblige.

Thanking You,

Yours Faithfully,

  
HOD/EEE 21/4/17

Professor & Head, Dept. of EEE  
The Oxford College of Engineering  
Bommanahalli, Hosur Road,  
BANGALORE - 560 068.





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### **MS Office Training**

**Date: 05.04.2017**



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BENGALURU, INDIA

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Hosur Road, Bommanahalli, Bangalore -560068

### **Department of Electrical & Electronics Engineering**

**Organizing**

### **MS Office Training**

on

**5th April 2017**

by

**Dr M S Shashidhara**

Professor & HOD Dept of MCA  
The Oxford College of Engineering



**Venue :6<sup>th</sup> Floor Seminar Hall**  
**Time :10AM**

**Chief Patron**

**Sri S.N.V.L Narasimha Raju**  
**President**

**The Oxford Educational Institutions**

**Convener**

**Mr N Jayakumar**  
**Professor/EEE**

**The Oxford College of Engineering**

**Prof. Nisha C Rani ,**  
**Prof Resna S R**

**Assistant Professor**  
**The Oxford College of Engineering**



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### **Report on MS Office Training**

**Date:** 05.04.2017

The Oxford College of Engineering organized a one-day workshop on "**MS Office Training** " on 05.04.2017 at 5th floor new building.

In the program basic knowledge to know how to use the most common Microsoft Office programs were discussed such as creating documents for printing and sharing, to create and share presentations and to manage and store data in a spreadsheet. There was a discussion and the queries asked by the employees were resolved Dr.M S Shashidhara, HOD Department of MCA The Oxford College of Engineering,

Bengaluru. Discussion Session was quite interesting & helpful to resolve many doubts of the participants.40 participants attended the program.





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### **Housekeeping Awareness Program**

**Date: 18/03/2017**

**The Oxford College of Engineering**  
Bommanahalli, Bangalore - 560068  
**HOUSE KEEPING AWARENESS PROGRAMME**  
**YEAR 2016 - 17**

**Date : 18<sup>th</sup> March 2017**  
**Time : 10:00AM**

**Venue: 6th Floor Seminar Hall**  
**New Building, TOCE**



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Approved by AICTE, New Delhi & Affiliated to VTU Belagavi.

Organizes a 2 day Training program on

### HOUSEKEEPING AWARENESS PROGRAMME

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President, The Oxford Educational Institutions

Patron

**Dr. RAJASHEKARAIAHS**

Director, The Oxford Educational Institutions

**Dr. KARIBASAPPA**

Principal, The Oxford Educational Institutions

Conveners

**Dr. S. R. RAJU**

Professor & HOD,  
Department of Automobile

**Dr. SHASHIDHARAM S**

Professor & HOD  
Department of MCA

Faculty Coordinators

**SHIVAKUMAR MM**

Assistant

Professor, Department of  
Automobile





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DATE	Sl. No	TIME	TOPIC	SPEAKER
18th Mar 2017	1	9:00AM 11:00 AM	Basic Training For House Keeping Staff	Dr. RAJUB. R Professor & HOD Department of Automobiles The Oxford College of Engineering, Bengaluru
	2	11:00 AM-1:30 PM	Over View Of House Keeping	Dr. SHASHIDHARAMS Professor & HOD Department of MCA The Oxford College of Engineering, Bengaluru
	LUNCH BREAK			
	3	2:00-5:00PM	Laboratory Area House Keeping Awareness	SANDEEP K CHAVAN Associate Prof. The Oxford College of Engineering, Bengaluru
19th Mar 2021	1	9:00AM 11:00 AM	The House Keeping Department In Organization	Dr. MANJUNATH B K, Professor & HOD Dept. of BT The Oxford College of Engineering, Bengaluru
	2	11:00 AM-1:30PM	Introduction To House Keeping Department	Dr. DHANALAKSHMI Professor & HOD Dept. of MBA, The Oxford College of Engineering, Bengaluru
	LUNCH BREAK			
	3	2:00-5:00PM	Basic Concept In House Keeping	Dr. SAHANA, Associate Professor & Dept. of MBA, The Oxford College of Engineering, Bengaluru



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### Report

The oxford college of engineering organized a one-day workshop on "Housekeeping awareness programme" on 18th March 2017 at the seminar hall 5<sup>th</sup> floor new building for housekeeping staffs. The main objective of this programme is to aware them about the importance of house keeping and cleanliness. Also, the Laboratory area house keeping also discussed. Dr. Raju, HOD Department of Automobile The Oxford College of Engineering, Bengaluru resolved the queries asked by the employees. Discussion Session was quite interesting & helpful to resolve many doubts of the participants.





**Date:**10-11-2017/11-11-2017

*The Oxford College of Engineering*  
**Registration Form**

## Internet of Things

10th & 11th November, 2017

Name.....

Stream.....

College/ Institution.....

Mobile No.....

E-mail:.....

Registration Fee Rs.....

DD No.....

Date.....

Name of the Bank & Branch:.....

Signature with seal  
Principal/Head of  
the Institution.

Signature of the  
Participant

NOTE: The filled in applications should be  
sent on or before 10th Nov, 2017.

Address for Communication

The Principal,

The Oxford College of Engineering

10th Milestone, Bommanahalli, Hosur Road,

Bengaluru-560068

Website: [www.theoxford.edu](http://www.theoxford.edu)

## CHILDREN EDUCATION SOCIETY **DEPARTMENT OF ISE**

PRESENTS

*Two Days Workshop*

ON

## **INTERNET OF THINGS**

*-Device to Device Interaction-*

10th & 11th November, 2017

REGISTRATION FEE: ₹ 550/-

Resource Person from i3indya Technologies

Organized by

## **The Oxford College of Engineering**

10th Milestone, Bommanahalli, Hosur Road, Bengaluru-560068

080-30219601/602/604

[www.theoxford.edu](http://www.theoxford.edu)

Contact Details: Mr. Channappa Gowda (9844321094), Adarsh Gupta (7284992136)



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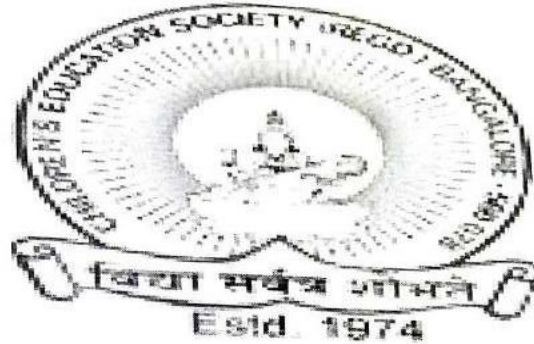
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THE OXFORD COLLEGE OF ENGINEERING

DEPARTMENT OF ISE

INVITES

For

Workshop

On

“INTERNET OF THINGS”

By

**Mr. Anchal Koshta & Kamlesh Kumar**

(Embedded Engineers, i3indiya Technologies)

**Date: 10<sup>th</sup> and 11<sup>th</sup> November 2017**

**Venue: IV Floor Seminar Hall**

**Timings: 10:30 am to 4:00 pm**





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Department of Information Science and Engineering  
The Oxford College of Engineering  
Bommanahalli, Bangalore-68



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President, Children's Education Society

## CHIEF MENTOR

Dr. R. Nagaraj  
Director  
The Oxford Educational Institutions

## MENTOR

Dr R V Praveena Gowda  
Principal, TOCE

## PROGRAM CHAIR

Dr. D. Jayaramaiah  
HOD, Department of ISE

## CSI-STUDENT BRANCH COORDINATOR

Mr Karthik S L  
Assistant Professor, Dept. of Ise

## PROGRAM COORDINATORS

Mr Channappa Gowda  
Mr Amreesh  
Ms Geethanjali

## ISI STUDENT CHAPTER COORDINATORS

Ankit - III Year ISE  
Ayush - III Year ISE  
Adarsh - III Year ISE

## TWO DAYS WORKSHOP ON "INTERNET OF THINGS" (DEVICE TO DEVICE INTERACTION)

Computer Society of India - Student Chapter - TOCE of the Department of Information Science and Engineering is organizing two days workshop on "Internet of Things" on 10th & 11th November 2017. The workshop is open to all Engineering departments.

## RESOURCE PERSONS OF THE WORKSHOP:

Mr. Anchal Koshta & Mr. Kamlesh Kumar  
Embedded Engineers, i3india Technologies

## THE TAKE AWAYS

- Knowledge of IOT/IOE Technologies
- Deep understanding of device to device interfacing and IPV6
- Implementing projects of IOT
- Building smart apps with IOT

## PARTICIPANTS

Final year and 3rd-year students of all departments can participate in the workshop.

## FOR REGISTRATION & FURTHER QUERIES CONTACT:

Mr.Karthik S L, Asst. Professor, +91-9886622862

Mr.Channappa Gowda, Asst. Professor, +91-9844321094

Adarsh Gupta, 3rd yr, +91-7204997136

Registration fees per student: 599/- only

Last date for registration: 9th Nov 2017

*Karthik*



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The Department of ECE, BT & CSE

*Cordially invites you for the Inauguration of the*  
**DST-TIFAC, Govt. of India**

Sponsored

**Two Day Faculty Development Program on**  
**Know Your Intellectual Property Rights**  
**Patent Awareness workshop**

In association with  
**KSCST and VTU, Belagavi**

**On 28<sup>th</sup> December, 2017, at 10.00 a.m.**

**Venue: Seminar Hall, VI Floor**

**Dr. Prabhat Ranjan**

Executive Director, TIFAC-DST, New Delhi  
Has kindly consented to be the chief Guest

**Dr. S.G. Sreekanteswara Swamy**

Executive Secretary, KSCST, IISc, Bengaluru  
Has kindly consented to be the Guest of Honor

**Sri.S.N.V.L. Narasimha Raju**

Chairman, The Oxford Educational Institutions  
will grace the occasion

**Dr. R. Nagaraj**

Director, The Oxford Educational Institutions

**Dr. R.V. Praveena Gowda**

Principal, The Oxford College of Engineering





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TWO DAYS FACULTY DEVELOPMENT PROGRAM ON  
KNOW YOUR INTELLECTUAL PROPERTY RIGHTS (IPR)

PATENT AWARENESS PROGRAM

in association with TIFAC, New Delhi

PROGRAM SCHEDULE

28<sup>th</sup> & 29<sup>th</sup> Dec-2017

Venue: VI Floor Auditorium, The Oxford College of Engineering, Bommanahalli, Bengaluru.

Registration 9:30-10.00 am

Inauguration: 10.00-11.15am

## SESSION SCHEDULE

S. No	Topic	Name	Duration	Contact Details
Day 1, 28/12/2017				
1.	Technology Vision 2035 and National IPR Policy	Prof. Prabhat Ranjan, Executive Director, TIFAC	1Hr 11.30-12.30	
2.	Patent Information Centre & its Support for Innovation & IPR in Karnataka	Dr. S. G. Sreekanteswara Swamy Executive Secretary I/c, Karnataka State Council for Science and Technology	20 mts 12.30-1.00 pm	
LUNCH BREAK-1-1.30pm				
3.	Introduction to IPR	Ms. Sangeeta Nagar, Scientist E, PFC-TIFAC	1Hr 1.30-2.30pm	
4.	Industrial Design & their Registration in India	Dr Rama Krishnamurthy, Patent Attorney, Ibhia Ip Solutions, Bangalore	45 mts 2.30-3.15 pm	
TEA BREAK-3.15-3.30				
5.	Patenting System in India	Dr. S P Subramaniyan, Head Chennai Patent Office	45 mts 3.30-4.15pm	
Day 2, 29/12/2017				
6.	Patenting in Engineering	Shri Nikhil S. Reddy, K&S Partners, Bangalore	1Hr 10-11am	80 40427946
7.	Importance of IP Policy and Cell for Educational Institutions	Ms. Sangeeta Nagar, Scientist E, PFC-TIFAC	30 mts 11-11.30am	
TEA BREAK-11.30-11.45				
8.	Copyright Management in Academic Institutions	Ms. Bindu Sharma, CEO, Origin IP Solutions LLP	30 mts 11.45-12.15pm	
9.	Prior Art Search for Novelty with Demo	Ms. Shivani Srivastava, Patent Attorney, M/s Lex Orbis, Bangalore	30 mts 12.15-12.45pm	
LUNCH BREAK-12.45-1.30 pm				
10.	Technology Transfer & Patent	Shri N G	30 mts	

Professor & HOD of E&C Engineering  
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	Licensing	Lakshminarayan, Chief, NRDC, Bangalore	1.30-2pm	
11.	Handling IP in Industry: TCS Experience	Mr. Srikanth Venkatesh, TCS, Bangalore	30 mts 2-2.30pm	
PANEL DISCUSSION-2.30-3.15pm				
VALEDICTORY-3.15-3.45pm				

1 R W R N S W R





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**Two days FDP on know your Intellectual Property Rights in association with DST-TYPHAC, Government of India, KSCST and VTU, Karnataka**



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DEPARTMENT OF BIOTECHNOLOGY

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### **Report on Faculty Development program on Know your intellectual property rights – Patent Awareness Workshop on 28<sup>th</sup> & 29<sup>th</sup> December, 2017.**


The Department's of Biotechnology, ECE & CSE organized a two day faculty development program on "*Know your intellectual property rights – Patent Awareness Workshop*" sponsored by DST-TIFAC, Govt. of India, on 28<sup>th</sup> & 29<sup>th</sup> December 2017. The main aim of the workshop was to impart greater awareness about the issue of IPR to the teaching and research fraternity and enable them to utilize it.

The main objective of the program were:

- To understand patentability criteria in detail and viable aspect of the patent.
- To understand and assess the importance and scope of IPR in academic researches.
- To understand types of innovations patentable & how to test patentability of innovations.
- To understand procedure of patent writing, patent filing and the process of granting patent.
- Indian IPR policy and facility extended for filing.

The Program was inaugurated by the chief guest, Professor Prabhat Ranjan, Executive Director, DST-TIFAC, New Delhi, who delivered key note address on the program. Dr. Nagaraj R, Director of The Oxford Group of Institutions presented a overview of the work shcp and emphasized on the need for greater level of understanding of IPR in the academics and its utilization for minimizing the gap between industry and academia. Principal Dr. Praveen Gowda addressed the gathering stressing on the importance of protecting and patenting the innovations in the present day scenario in the field of Engineering. the inaugural session concluded with vote of thanks delivered by Dr.Balacoteshwari, Professor. Master of Business Administration. On the eve of inauguration dignitaries from various Academic institutions and Industry personals were present.

The first technical session began with Prof. Prabhat Ranjan delivering a talk on "Technology vision 2035 and National IPR policy" which emphasized on the importance of innovation, IPR policy, Academia and Industry interaction, global scenario in technology development and role of India in Global Science and technology. The Second Technical session was given by Mrs.Sangeetha Nagar, Scientist E, PFC-TIFAC, she delivered an expert lecture on the

  
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"Introduction to IPR" throwing light on the various opportunities for patenting the innovations, schemes of TIFAC in promoting filing of IPR. The third session was followed by Dr.S.P Sbramaniyan, Head Chennai Patent office, the speaker delivered a talk on "Patenting systems in India." the sessions gave an insight in the deeper understanding of IPR and the regulations and systems of patenting in India.

The post lunch session had an invited talk on "Prior Art search for Novelty with Demo" by Dr.Shivani Srivastava, Patent Attorney, M/s Lex Orbis, Bengaluru, explaining the method and procedure followed for prior art search, various websites, literature, and resources available for faculties.

Second day Pre lunch session was started with a series of expert lecture from Mr. Naveen Suriya, K&S Partners, Bengaluru, He delivered a lecture on "Patenting in Engineering" explaining the methods that can be employed in enhancing innovation and patenting in Engineering technology and "Importance of IP policy and cell for educational institutions" was the talk delivered by Mrs. Sangeetha Nagar, Scientist E, PFC-TIFAC, In the third session, Ms.Bindu Sharma, CEO, Origin IP solutions LLP delivered a talk on "Copyright management in academic Institution". the session continued with Dr. Rama Krishnamurthy, Patent Attorney, Ibha IP solutions, Bengaluru addressing the participants with her talk on "Industrial Design & their registration in India".

The second day post lunch session began with technical talk titled "technology transfer & Patent Licensing" by Mr. N G Lakshminarayan, Chief NRDC, Bengaluru and the session ended by the last speaker Mr. Srikanth Venkatesh, TCS, Bengaluru delivering the lecture on "handling IP in industry: TCS Experience". A panel of experts was invited on the dias to address the doubts and confusions raised by the participants.

The FDP ended with valedictory function by the professionals and the staff members, collection of opinions from the participants and most importantly, distribution of Certificates of Participation for all the participants.

The workshop was successful in bringing awareness on patenting and the various opportunities available in Government policies to promote the innovation and patenting. It helped the faculty in understanding the role of TIFAC in promoting the patent awareness. The participating faculty of Visvesvaraya Technological University greatly benefited by the workshop and appreciated the effort of the Oxford College of Engineering and DST-TIFAC in organizing such a informative, brain storming, educative sessions and requested to organize one more Advanced workshop to train the faculty on patenting procedure. On behalf of all participants we express our deep gratitude to DST-TIFAC, Executive Director Professor Prabath Ranjan, Mrs.Sangeetha Nagar, and Mr.Yeshawant D Panwar PFC-TIFAC for their kind support and we expect more such associated activities to spread awareness on Innovation and patenting in Academic Institutions.

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The Oxford College of Engineering  
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### Workshop on Genomic Informatics sponsored by Bionivid Pvt. Ltd., Bengaluru



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Website: www.theoxford.edu.

#### Report on the two days workshop on Genomic Informatics from 27-10-2017 to 28-10-2017

##### OBJECTIVES OF THE WORKSHOP:

- Understanding the basics principles of Genomics and Proteomics data analysis.
- Using Linux environment and commands how to analyze FastaQ files and Next generation sequencing data.

The Department of Biotechnology has organized a two days workshop on “**Genomic Informatics**” in association with Bionivid Pvt. Ltd., Bengaluru on 27<sup>th</sup> to 28<sup>th</sup> October 2017. The Program was inaugurated by the chief guest Dr. S. G. Sreekanteswara Swamy. Principal Scientific Officer and Executive Secretary, KSCST & VGST, Bengaluru, who delivered key note address on the Workshop Program, Principal Dr. Praveen Gowda addressed the gathering stressing on the importance of engineering students in medical field, followed by Director Dr. R Nagaraj explained the students how should they adapt with new technology which is going on in industries. Dr. B.K. Manjunatha, professor, Department of Biotechnology gave key note address on the Workshop program. Mrs. Sindhu and Mr. Shambhu Asst Professor, Department of Biotechnology delivered vote of thanks. Mrs. Valermathy Asst Professor anchored the whole program. On the eve of inauguration dignitaries from various Academic and Industry personals attended.

In the First technical session, Dr. S. G. Sreekanteswara Swamy. Principal Scientific Officer and Executive Secretary, KSCST has delivered talk on genomic applications in medical field. Second Technical session was given by Mr. Avinash Dhar, Senior Genome Analyst, Bionivid Pvt. Ltd., Bengaluru, he delivered an expert lecture on the “**Data analysis of NGS (Next Generation Sequencing)**”. The invited talk was followed by Hands on training on Next Generation Sequencing and basic principles, loading the files and analysis by command prompt.

Second day Pre lunch session was started with an expert lecture from Mrs. Richa ,HR Bionivid Pvt Ltd, Bengaluru, she delivered a lecture on “**Evolution of Genome Sequence Technology: Past, Present & Future**”. In the second session, hands on training on Fastaq files handling and analysis of SNPs in genomic data in Linux environment.





# CHILDREN'S EDUCATION SOCIETY (Regd.) THE OXFORD COLLEGE OF ENGINEERING

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Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

## ABOUT THE INSTITUTE

The Oxford College of Engineering is one of the 36 prestigious institutions run by the Children's Education Society founded by the eminent Educationalist & Philanthropist (Late) Shri. S. Narasa Raju. His legacy is being carried forward by the President Shri. S. N. V. I. Narasimha Raju, the most dynamic technocrat & the driving force to attain global academic excellence. The college has been accredited by NAAC and aims at carving competent students with extraordinary value systems to face challenges of the continuously changing World. There are 11 UG programs, 14 PG programs & 10 VTU approved R & D Centers are running in the College.

## ABOUT THE DEPARTMENT

Department of Biotechnology made its debut in The Oxford College of Engineering in the year 2003. The excellent infrastructure of the Department and faculty driven entity involving multidisciplinary expertise has created an amicable ambience to provide quality education to the aspiring biotech engineers. The department has R & D Center which engages in carrying out research works in various fields. The innovative ideas generated by R&D centre has been recognized by various Government funding agencies viz., DRDO-NRB, DAE-BRNS, AICTE, VGST-KFIST, VTU & N extended financial bid to execute the ideas

## ABOUT THE WORKSHOP

The workshop exposes the audience to the concept of genomics computing, various roles in genomics and proteomics, analyze Next Generation Sequencing (NGS) data for end-users and provide gene predictions. This will give participants insights into what goes behind providing infrastructure and how administrators manage large data centers.

As a part of CSR (Corporate Social Responsibility), "The Genome Education" initiative with a vision to create skill sets and awareness among students for a career as Genomics Data Scientist. Today, many opportunities await students in this domain, in both academia and industry.

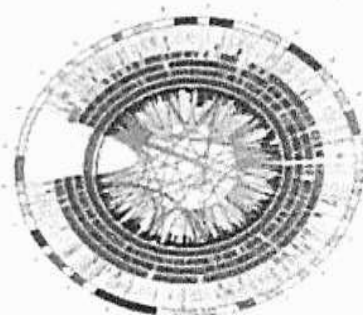
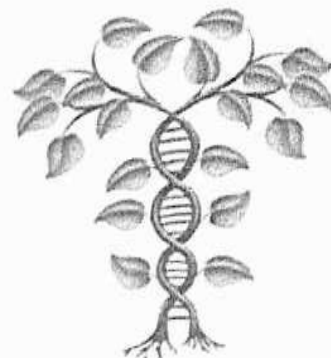
So, in collaboration with Bionivid Pvt. Ltd. Bengaluru, the Department is organizing 2-days workshop for UG students to introduce them to Genome Informatics and also share knowledge on various career opportunities in academia and industry respectively.

The 2-Day Workshop will include :

- Presentation on Genome Informatics & Career Opportunities.
- Analysis of NGS data
- Evolution of Genome Sequence Technology: Past, Present & Future
- Hands-on-workshop - FUN WITH GENOMICS

## INTENDED AUDIENCE

The Workshop is open for the students of the BT, ISE/CSE Departments and all Inter disciplinary Research Scholars.



## ADDRESS FOR COMMUNICATION

**Mr. Shambhu M.G**

**Asst Professor, Dept of  
Biotechnology**

**Email :shambumg13@gmail.com**

**Contact no :9880613060**

**Dr. Manjunath B.K**

**Professor and Dean R &D**

**Department of Biotechnology.**

**Email:dr.manjunath.toce@gmail.com**

**Contact no: 9448839887**





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Children's Education Society (Reg.)



**THE OXFORD COLLEGE OF ENGINEERING**

Bommanahalli, Hosur Main Road, Bengaluru-560068

**DEPARTMENT OF BIOTECHNOLOGY**

Is Organizing

**Two Days Workshop**

(27<sup>th</sup> to 28<sup>th</sup> October 2017)

On

**“GENOMIC INFORMATICS”**

On Friday 27<sup>th</sup> October, 2017 at 10.00 A.M

**CHIEF GUESTS**

**Dr. S. G. Sreekanteswara Swamy**

Executive Secretary

Karnataka State Council for Science and Technology

**Mr. Avinash Dhar,**

Senior Genome Analyst

Bionivid Pvt. Ltd., Bengaluru

**Venue:** 3<sup>rd</sup> Floor Seminar Hall, New Block, The Oxford College of Engineering

**Dr. Kusum Paul**

Professor & Head,

**Dr. B.K. Manjunath**

Professor & Dean R & D

**Staff & Student**

Coordinators

**Department of Biotechnology**



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## The Oxford College of Engineering Department of Biotechnology

(Approved by AICTE & Accredited by NAAC, New Delhi & Affiliated to VTU, Belagavi)

### Two Days Workshop on Genomic Informatics

27<sup>th</sup> - 28<sup>th</sup> October, 2017

#### REGISTRATION FORM

Name: .....

Designation: ..... Dept.: .....

Institution: .....

Address: .....

Phone: ..... Fax: .....

Mobile No: .....

Email ID: .....

Registration Fees: Rs 100/-

Spot Registration will also be considered between 9.00 am to 9.30 am on 27<sup>th</sup> October 2017

Signature of  
Applicant

Signature of Principal

#### PATRONS

##### CHIEF PATRON

Sri. S. N. V. L. Narasimha Raju,  
President, Children's Education Society (Reg.)

##### CHIEF ADVISORS

Dr. R. Nagaraj  
Director,  
The Oxford Educational Institutions

Dr. R.V. Praveena Gowda  
Principal,  
The Oxford College of Engineering

##### CONVENER

Dr. Kusum Paul,  
Prof. & Head, Dept. of Biotechnology  
The Oxford College of Engineering

##### CO-CONVENER

Dr. Manjunath. B. K.,  
Professor, Dean R & D  
Dept of Biotechnology  
The Oxford College of Engineering

#### CHIEF GUEST

Dr. S. G. Sreekanteswara Swamy.  
Principal Scientific Officer  
and Executive Secretary I/c  
KSCST & VGST.

#### ORGANIZING COMMITTEE

Mr. Shambhu M.G. Asst Professor  
Dr. Suma T K, Asst. Professor  
Mr. Divakara R, Asst. Professor  
Ms. Salma Kausar M, Asst. Professor  
Mrs. Valarmathy K, Asst. Professor  
Mrs. Tanusree Bhattacharya, Asst. Professor  
Ms. Sindhu R Asst. Professor.



## Two days workshop on Genomic Informatics

27<sup>th</sup> - 28<sup>th</sup> October, 2017

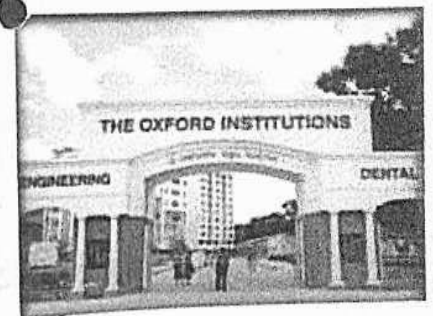
Organized by

Department of Biotechnology

in association with

Bionivid Pvt. Ltd., Bengaluru

#### WORKSHOP VENUE



**The Oxford College of Engineering**  
Hosur Road, Bommanahalli, Bengaluru-560 068  
080-30219601/02, Fax: 080-25730551, 30219629,  
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E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Reg: 1-Day Workshop on



Shambu Mg <shambumg13@gmail.com>

## Reg : 1-Day Workshop on Genome Informatics

2 messages

20 September 2017 at 18:29

Richa Bhardwaj <richa@bionivid.com>

Reply-To: Richa Bhardwaj <richa@bionivid.com>

To: "shambumg13@gmail.com" <shambumg13@gmail.com>

Dear Sir,

I am Richa Bhardwaj, Program Coordinator of The Genome Education(TGE) at **Bionivid Technology Pvt Ltd.**

Bionivid is a heading Genome Informatics Company, providing collaborative services to scientists from reputed institutes like IISC, JNSACR, JNU, DU etc.

As a part of **CSR (Corporate Social Responsibility)**, Bionivid has recently launched "**The Genome Education**" initiative with a vision to create skill sets and awareness among students for a career as Genomics Data Scientist. Today, many opportunities awaits students in this domain, in both academia and industry.

So, we would like to conduct a-1-day workshop at your college for students to introduce them to Genome Informatics and also share knowledge on various career opportunities in academia and industry respectively .

### 1-Day Workshop will include :

- \* Presentation on Genome Informatics & Career Opportunities.
- \* Evolution of Genome Sequence Technology : Past, Present & Future
- \* Hands-on-workshop - FUN WITH GENOMICS

### FUN WITH GENOMICS

1. Genome Browser - Data Visualisation ( See Your Genome)
2. Sequence Manipulation & File Handling ( Jab FASTQ Met FASTA )
3. Variation Identification & Analysis ( Genome Mein Khot Hai !! )
4. Genome-Genome Comparison ( How Different are you from a Chimpanzee ) .... and much more !!

The workshop will be followed with an interesting **QUIZ** and some Exciting Prizes !!

The Seminar session is open to all the students of M.Sc or B.Tech **Biotechnology** or any other **Life Science** domain. Whereas, in the FUN WITH GENOMICS Session, the students of M.Sc 3rd semester and B.Tech 7th semester are invited (25 students only).

Kindly confirm the dates for the Workshop so that we can make the arrangements for the same, accordingly.

We are sure this will benefit the students immensely and request you to share this information with the

9/26/2017 1:57 PM





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Bionivid Presents

# GAP

## Genomics Awareness Program



As a part of CSR (Corporate Social Responsibility), Bionivid is organizing 1 day Genomics Awareness Program (GAP) under The Genome Education (TGE) initiative with a vision to create skill sets and awareness among students for a career as Genomics Data Scientist. Today, many opportunities awaits students in this domain, in both academia and industry.

### 1-Day Program Will Include

Seminar (Open To All M.Sc and B.Tech in Biotechnology or any other Lifescience domain)

- ✓ Genome Informatics & Career Opportunities
- ✓ Evolution of Genome Sequence Technology - Past, Present & Future

### Workshop - FUN WITH GENOMICS

(25 students ONLY, M.Sc. 3rd Semester or B.Tech 7th Semester)

Genome Browser - Data Visualisation ( See Your Genome )

Sequence Manipulation & File Handling ( Lab FASTQ, MAF, FASTA )

Variation Identification & Analysis ( Genome Mein Khot Hai !! )

Genome-Genome Comparison ( How Different are you from a Chimpanzee )

...and much more !!



**Quiz and exciting Prizes**

### For Registration

Please write to [ggi@bionivid.com](mailto:ggi@bionivid.com) OR Call +91- 96637 32004





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E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

Two days Workshop on  
"Binding Affinity and ADMET in  
Drug Discovery and Candidate  
Selection"

## REGISTRATION FORM

Name: .....  
Designation: .....  
Dept.: .....  
Institution: .....  
Address: .....  
Phone: .....  
Fax: .....  
Mobile No: .....  
Email ID: .....

Registration Fees: Rs. 150/-

Spot Registration will also be considered be-  
tween 9.00 am to 9.30 am on 4<sup>th</sup> APRIL 2018

Signature of Applicant :

## PATRONS

### CHIEF PATRON

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President, Children's Education Society (Reg.)

### CHIEF ADVISORS

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Dr. R.V. Praveena Gowda,  
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The Oxford College of Engineering

### CONVENER

Dr. Manjunath. B. K,  
Head of the Department,  
Professor, Dean R & D,  
Dept. of Biotechnology,  
The Oxford College of Engineering

### ORGANIZING SECRETARY

Mrs. Valarmathy K,  
Asst. Professor,  
Dept. of Biotechnology,  
The Oxford College of Engineering.

### CHIEF GUEST

Dr. Girinath G Pillai.  
CEO, Zastra Innovations Pvt. Ltd.,  
Bengaluru.

## ORGANIZING COMMITTEE

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Dr. Suma T K, Asst. Professor  
Mr. Divakara R, Asst. Professor  
Ms. Salma Kausar M, Asst. Professor  
Mr. Shambu M.G, Asst. Professor  
Mrs. Tanusree C, Asst. Professor  
Ms. Sindhu R, Asst. Professor.



Two days Workshop on  
"Binding Affinity and ADMET  
in Drug Discovery and  
Candidate Selection"

4<sup>th</sup> & 5<sup>th</sup> April, 2018

Organized by

Department of Biotechnology

In association with

Zastra Innovations Pvt. Ltd.,  
Bengaluru



DRUG DISCOVERY AND  
DEVELOPMENT

## VENUE

The Oxford College of Engineering  
Hosur Road, Bommanahalli,  
Bengaluru-560 068  
Phone No: 080-30219601/02,  
Fax: 080-25730551, 30219629,  
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### ABOUT THE WORKSHOP

Zastra Innovations Pvt. Ltd. Bengaluru, is a renowned representative for the leading scientific software partners in Computational Chemistry, Molecular, Atomistic Modelling and Medicinal Chemistry field collaborating with a wide range of companies across the globe.

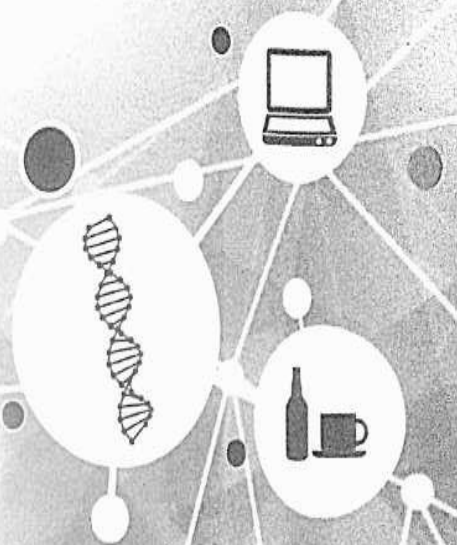
The workshop exposes the audience to explore the latest developments in the technology for candidate/lead selection in drug discovery, which help in quick selection of target compounds with the best balance of properties for a drug discovery and to analyze the predictive modeling of ADMET properties and how these models can be used to guide the design of improved compounds are trivial. The workshop will also helps to understand the 3-dimensional (3D) structure based design information that can be linked with 2D SAR analysis, which is vital to meet the requirements of a drug. The workshop aims at providing hands on training on computer aided design which plays an important role in the phase of drug discovery.

The 2-Day Workshop will include :

- Presentation on binding affinity and ADMET in Drug discovery & candidate Selection
- Hands-on-training on - Predictive modeling of ADMET properties & Candidate Selection ,ADMET in Drug Discovery.

### INTENDED AUDIENCE

The Workshop is open for the students of the BE in the stream of BT, ISE/CSE and all Inter disciplinary Research Scholars.



### ADDRESS FOR COMMUNICATION

**Dr. Manjunath B.K**

Head of The Department  
Professor and Dean R &D

Department of Biotechnology.

Email:dr.manjunath.toce@gmail.com

Contact no: 9448839887

**Mrs.K.Valarmathy**

Asst Professor

Dept of Biotechnology

Email :mathy.valar@gmail.com

Contact no :9739672705





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### **Binding affinity and ADMET in drug discovery and candidate selection**



Children's Education Society ®

## **THE OXFORD COLLEGE OF ENGINEERING DEPARTMENT OF BIOTECHNOLOGY**

Hosur Road, Bommanahalli, Bengaluru-560 068

080-30219601/02, Fax: 080-25730551, 30219629,

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Website: [www.theoxford.edu](http://www.theoxford.edu).

### **Report on the two days workshop on Binding affinity and ADMET in Drug Discovery and candidate selection" from 4<sup>th</sup> to 5<sup>th</sup> April 2018**

#### **OBJECTIVES OF THE WORKSHOP:**

- Workshop aims at providing hands on training on computer aided drug design, screening of lead molecules based on their properties.

The Department of Biotechnology has organized a two days workshop on "**Binding affinity and ADMET in Drug Discovery and candidate selection**" in association with Zastra Innovations Pvt. Ltd, Bengaluru on 4<sup>th</sup> to 5<sup>th</sup> April 2018. The Program was inaugurated by the chief guest Dr. Girinath G Pillai. CEO, with Zastra Innovations Pvt. Ltd, Bengaluru, who delivered key note address on the Workshop Program, Principal Dr. Praveen Gowda addressed the gathering stressing on the importance of Computational Drug discovery in medical field, followed by Vice Principal Dr. R.J. Anandi explained the students on how multidisciplinary science can help to solve real time problems. Dr. B.K. Manjunatha, professor, Department of Biotechnology gave key note address on the Workshop program importance of screening lead molecules and toxicity test from Bioinformatics software. Mrs. Valarmathy Asst Professor anchored the whole program. On the eve of inauguration dignitaries from various Academic and Industry personals attended.

In the First technical session, Dr. Girinath G Pillai. CEO, with Zastra Innovations Pvt. Ltd, Bengaluru. He has delivered talk on Bioaffinity calculation and scoring function formula related to structure activity relationship and water solubility values. Second Technical session was started with Hands on training on how to screen molecules using FlexX software with 2D SAR analysis.

Later in the next session workshop was followed by hands on training on ADMET prediction of lead molecules and screening based on cluster analysis, students started analyzing case studies, which helped them to screen lead molecules and collective property information on Lipinski's rule.





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The Workshop ended with conclusions and career in drug discovery by the professionals and the staff members, collection of opinions from the students and most importantly, distribution of Certificates of Completion for all the participant

### **Course Outcome:**

- Students have learnt the proteomics importance, and protein structure validation.
- Students have undergone training on ADMET properties of Drug candidates and validation importance in clinical research




Inaugural function of Workshop



Principal addressing on Workshop



Key note talk by the guest

  
**DR. B.K. MANJUNATHA**  
Professor & Head  
Department of Biotechnology  
The Oxford College of Engineering  
Bangalore - 560 068



CHILDREN'S EDUCATION SOCIETY (Regd.)

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**AICTE Sponsored Two Weeks Faculty Development Programme "World Class New Product Design and Manufacturing" In the Year 2017-18**







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All India Council for Technical Education (AICTE) sponsored  
Two Weeks - Faculty Development Program  
on

**“WORLD-CLASS NEW PRODUCT DESIGN AND  
MANUFACTURING”**

Proceedings & Final Completion Report-2017-18



Organized By:

Department of Automobile Engineering

The Oxford College of Engineering

Bommanahalli, Bangalore - 560068

1<sup>st</sup> – 13<sup>th</sup> January, 2018





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**AICTE Sponsored**

**Two Weeks Faculty Development Programme**

**"WORLD CLASS NEW PRODUCT DESIGN AND MANUFACTURING"**

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## **REPORT**

On

**AICTE sponsored two weeks Faculty development programme**  
**"WORLD CLASS NEW PRODUCT DESIGN AND MANUFACTURING"**  
**At THE OXFORD COLLEGE OF ENGINEERING, BENGALURU**  
**1<sup>st</sup> – 13<sup>th</sup> January-2018.**

The AICTE FDP on World Class New Product Design and Manufacturing inaugurated by Mr. Sadashiva Baligar, Vice President of Toyota-Kirloskar Auto Parts Private Limited, Bengaluru, as a Chief guest, Mr. D R Kumar, Managing Director of M/s SKANDA Machine Tools Private Limited, Bengaluru as the Guest of Honour, Dr. Raju B R, FDP Co-ordinator gave welcome speech to all the participants on 1<sup>st</sup> January 2018. Total 75 participants were attended the programme and gained the knowledge in the field of Product Design and Manufacturing in which 50 outside participants and 25 internal participants were attended. The sessions were handled by the various subject experts and details of talks are enclosed in the programme schedule. The industrial visit two days was arranged to Skanda Machine Tools Private Limited and Unique Precision Private Limited, Bengaluru on 5<sup>th</sup> and 6<sup>th</sup> January 2018. The Valedictory function held on 13<sup>th</sup> January 2018 by Dr. Y Vijaya Kumar, Principal of Sai Ram College of Engineering, Bengaluru was the Chief guest and Dr. R Nagaraj, Director of The Oxford Group of Institutions, Bengaluru, distributed the certificates to all the participants. Dr. R V Praveena Gowda, Principal and Dr. R J Anandhi, Vice Principal, The Oxford College of Engineering, Bengaluru was presided over the function. Dr. Raju B R, FDP Co-ordinator and Prof. Sandeep Kumar K Chavan, Event Coordinator, Department of Automobile Engineering, The Oxford College of Engineering, Bengaluru has delivered the vote of thanks.





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**Two Weeks Faculty Development Programme**

**"WORLD CLASS NEW PRODUCT DESIGN AND MANUFACTURING"**

**Date: 1<sup>st</sup> January, 2018**

## **Inauguration Session**

Inaugurated by Mr. Sadashiva Baligar, Vice President of Toyota-Kirloskar Auto Parts Private Limited, Bengaluru, as a Chief guest, Mr. D R Kumar, Managing Director of M/s SKANDA Machine Tools Private Limited, Bengaluru as the Guest of Honour.







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**Day-1 & Date: 01-01-2018**

**Technical Session-1:**

**Topic: New Product Development Process**

**Resource Person: Mr. Sadashiva Baligar, Vice President, Toyota-Kirloskar Auto Parts Private Limited, Bengaluru**

The first technical session was started with formal welcome note by Dr. Raju B R, FDP Co-ordinator, Professor and Head, Department of Automobile Engineering. The resource person of this session, Mr. Sadashiva Baligar, Vice President of Toyota-Kirloskar Auto Parts Private Limited, started his discussion with detail description on challenges in the product development process in the various industries like automobile, machine tools, etc. He gave brief overview of manufacturing process in Toyota Production System (TPS). He further added that if faculty wants to develop themselves and their students, then attending such faculty development programs would enhance their skills of teaching the practical concepts. He ended the discussion with the quotation: *"Win India, Win the World"*. The session was ended with the vote of thanks given by Dr. Raju B R, Professor and Head, Department of Automobile Engineering, The Oxford College of Engineering.



**Technical Session-2:**

**Topic: Product Design & Manufacturing**

**Resource person: Dr. C B Vijaya Vittalla, R & D Head, Brahma Consultant, Tumkur**

Has given talk on Product development is the set of activities beginning with the perception of a market opportunity and ending in the production, sale, and delivery of a product. He addresses Characteristics of Successful Product Development and also the explicitly focus on products that are engineered, discrete, and physical.





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At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.



#### **Technical Session-3:**

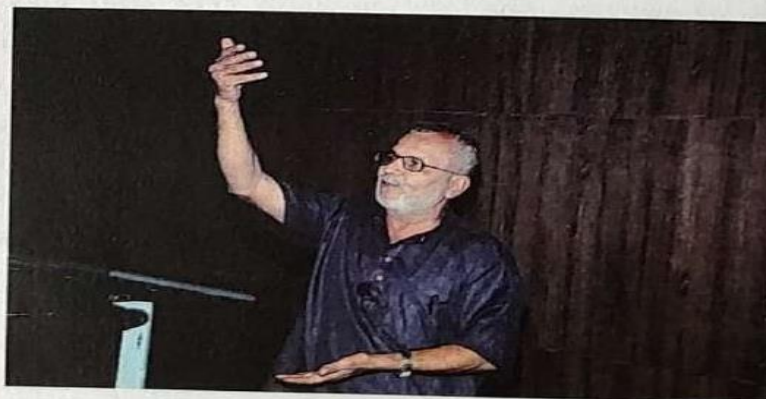
Topic: **Case Study on Product Design & Manufacturing**

Resource person: **Dr. C B Vijaya Vittalla, R & D Head, Brahma Consultant, Tumkur**

Welcome note was presented by Dr. Raju.B.R Professor & Head, Dept, of Automobile Engg.

He started from conceptual design of broom stick, their problem definition from complex into simpler sub problems. He explains the Concept Selection is an Integral Part of the Product Development Process, design architecture and ended with product ramp up.

At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.





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**Day-2 & Date: 02-01-2018**

**Technical session-4:**

**Topic: Alternative energy source for Automobile - Hybrid Vehicle**

**Resource Person: Dr. Bharath Kumar V S, Professor & Head, Dept. of EEE, T.O.C.E., Bengaluru**

Has given technical talk on Historical perspective of development of Hybrid Vehicle and future electric cars are invented to overcome air and sound pollution in present scenario. he given the components of hybrid vehicles and mentioned the pros and cons of future cars.

At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.



**Technical session-5:**

**Topic: Cellular Metals**

**Resource Person: Dr. H B Niranjana, Dean R & D, Sambram Institute of Technology, Bengaluru**

Dr. Raju.B.R Professor & Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Has given overview of Properties of Cellular Metal & various production methods for cellular metallic materials and also share knowledge on Crash Energy Absorption of different metallic materials.

At the end of the session, Ms.SapthagiriPrasad N , Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.





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## **Technical session-6:**

**Topic: Applications of PLM in Product development**

**Resource Person: Dr. Vijaya Kumar Professor & Head, Dept, of IE&M, JSSATE, Bengaluru**

Dr. Raju.B.R Professor & Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Lecturer on core knowledge on Components of Product life cycle management (PLM) & thurst Opportunities in PLM for better product which is going to be delivering on time to the consumers & importance of data acquisition for various products to systematized the processes in manufacturing industries by using Product Data Management-PDM. At the end of the session, Ms.Priyankar Dhole, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.





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**Technical session-7:**

**Topic: Laser Beam & Water Jet Machining**

**Resource Person: Dr.Raju.B.R Professor & Head, Dept, Automobile Engg, T.O.C.E., Bengaluru**

As a resource person of the session, highlighted the importance of two different techniques for machining process and comparisons are illustrated to highlight the differences between them. Which technology is best suited to cutting metal? And also details explanation of many different materials for the production which generally have to be respectively formed by a more or less complicated cutting operations.







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**Day-3 & Date: 03-01-2018**

**Technical session-8:**

**Topic: FEA in Product Design**

**Resource Person: Mr. Bhanuprakash Dixith Consultant, ARK Infosolutions, Bengaluru**

The third day technical session was started with ARK Infosolutions. He briefed the CFD analysis in product design and had discussion on software solution in product analysis.

ARK Infosolution Pvt. Ltd. is a niche player and a leading value added distributor for technology products in India with its world class team and performance excellence for the industry segments like animation Architectural engineering & construction Gaming Graphics Design, Manufacturing Mechatronics, Product design and robotics. The company partners with clients in achieving effective solution to meet the inherent challenges of its client's critical business processes.



**Technical session-9:**

**Topic: FEA in Product Design**

**Resource Person: Mr. Bhanuprakash Dixith Consultant, ARK Infosolutions, Bengaluru**

ARK Infosolutions were provided Hands on session by using fluidyn software to participant with different case realistic problems & the session was ended with problems e.g. CFD, Multi-dynamics, autocorrelation and in regression analysis.



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### Technical session-10:

Topic: Glass Fiber Reinforced Epoxy Hybrid Composites for Automobile Applications

Resource Person: Dr.Raju. B.R Professor & Head, Dept, of Automobile Engg, T.O.C.E., Bengaluru

He started the session with the basics of properties of matrix and reinforcement Discussion and Further he defined the difference between the composites and ferrous metals & well described the various measures of hybrid composites which has tremendous applications in the automotive industries.







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#### **Technical session-11:**

**Topic: TQM in PDM**

**Resource Person: Dr.Raju.B.R Professor & Head, Dept, of Automobile Engg. T.O.C.E., Bengaluru**

Mr. Sandeep k chavan welcomed the resource person and delegates of the 11th technical session. Technical session was started by Dr.Raju. B.R He started his discussion with the various multivariate techniques, their need and importance in quality parameters in production process.





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Day-4 & Date: 04-01-2018

Technical session-12:

Topic: Engg. Education & Research in India

Resource Person: Dr. M S Shashidhara Professor & Head, MCA, T.O.C.E., Bengaluru

Dr. Raju.B.R Professor & Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Resource person of the technical session, Prof. M S Shashidhara discussed in detail importance of Research scenario in education and he suggested for how a significant number of engineering institutions would be able to improve their performance from the current dismal stage of development to the aspiration stage of high-performing engineering institutions over the next ten years.



Technical session-13:

Topic: Role of Advanced Material in PDM

Resource Person: Dr. R V Praveena Gowda, Principal, T.O.C.E., Bengaluru

In the Fourth day's technical session, welcome note was presented by Dr. Raju.B.R Professor & Head, Dept, of Automobile Engg, Dr. R V Praveena Gowda, as a resource person of the session, started his discussion with the basic idea of Process optimisation of manufacturing process and gave brief discussion on adaptive and smart manufacturing .He deeply explained future materials which are biodegradable in nature i.e Biocomposite and also enlightened the participants to involve in research work on biocomposites.





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At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.



### **Technical session-14:**

**Topic: Power of Artificial Intelligence in PDM**

**Resource Person: Dr. M S Shashidhara, Professor & Head, MCA, T.O.C.E., Bengaluru**

Prof. B Dr. M S Shashidhara, Professor has begun his talk by explaining power of artificial intelligence to create insights and detect patterns and anomalies that escape detection by the cognitive. He described, In design engineering domain, integrated concepts of artificial intelligence into commercial PDM systems. The software is based on a dynamic and flexible workflow model, as opposed to the deterministic workflows seen in most commercial PDM applications.

Mr. Harish Kumar, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.







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**Day-5 & Date: 05-01-2018**

### **SKANDA MACHINE TOOL INDUSTRY-INDUSTRY VISIT**

The FDP participants went for the Industrial visit to the M/s Skanda Machine Tools Pvt. Ltd. Peenya Industrial Area Bangalore – 560058 all the participants over very much delighted and got the knowledge regarding design and manufacturing of special purpose machinery, jigs and fixtures, assembly automation for the automobile industries and also participants visited design, manufacturing, inspection, assembly and dispatch sections.



**Day-6 & Date: 06-01-2018**

### **UNIQUE PRECISION-INDUSTRY VISIT**

On 06/01/2018 all FDP participants visited the M/s. UNIQUE Precision, Peenya Industrial Area Bangalore – 560058 the company is involved in manufacturing in the CNC turned, milling and grinding components and supplying to the general motors, general electric and exporting to the foreign companies. The FDP participants observed & all CNC programming for the parts to be manufactured and seen the CNC machining in all CNC machining. Finally all participants were very happy finally with both the company while they visited for Industrial visit.





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**Day-8 & Date: 08-01-2018**

**Technical session-16:**

**Topic: Overview of New Product Design & Manufacturing**

**Resource Person: Dr. N B Doddapattar, Prof & Head, Dept of Mechanical, TOCE, Bangalore**

In this technical session, Dr. N B Doddapattar, Prof & Head, Dept of Mechanical, TOCE, Bangalore presented an overview idea of Product design and manufacturing and its innovative ideas in the development of products. So the idea here is that you need to understand not only how big the marketplace is, but you need to manage your resources so that you are spending it in proportion to that which the customers value. Finally, the product development and management process casts. Mr. Deepak U S, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.







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#### Technical session-17:

Topic: Concept Initialization & Product Styling with Product Sustainability

Resource Person: **Dr. C.Girisha, Professor & Head, Dept of Mechanical, AMCCE, Bangalore**

In the 8th day of Technical session, Mr Raviteja R N presented a welcome note. Professor C.Girisha began his talk with by explaining the introduction of sustainable products, predicted that the move from manufacturing to services production is an outcome of economic forces. Turnover in consumer preferences is in accordance with rapid life-style changes. The breakdown of central society today is directly linked to the inadequate images of probable futures. He concluded that every society faces not merely a succession of probable futures but an array of possible features and conflict over probable futures.

Mr. Maruthi S B, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



#### Technical session-18:

Topic: Current Developments in MMC's & Thermal Spray Coating

Resource Person: **Dr. D P Girish Professor, GCE, Ramanagar**

In the afternoon session Mr Raviteja R N, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and Resource person. Dr. D P Girish Professor started with Future Development of Thermal Spray Coatings and the latest developments and research trends in the thermal spray industry. The book presents a timely guide to new applications and techniques. After an introduction to thermal spray coatings by the editor, Part One covers new types and properties of thermal spray. Timely guide on the current advancements and research trends in thermal spray technology, Presents a wide variety of applications for this emerging technology.





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Mr. Hemantha C , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates



### **Technical session-19:**

**Topic: Role of Human Factor Engineering in Product Design**

**Resource Person: Prof.Sandeep Kumar K Chavan, Assistant Professor, Dept of Automobile Engg, TOCE, Bangalore**

In the afternoon session Mr Maruthi S B, Assistant professor , Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Prof.Sandeep Kumar K Chavan introduced the topic by telling the Human factors and ergonomics (commonly referred to as HF&E), also known as comfort design, functional design, and systems, is the practice of designing products, systems, or processes to take proper account of the interaction between them and the people who use them. Human factors recognize that the workplace needs to be designed and organized to minimize the likelihood of errors occurring and the impact of errors when they do occur. Investing in ergonomics can help to increase the health and wellbeing of office personnel. Effective ergonomic products and practices can increase productivity by reducing the time taken to complete daily tasks.

Mr. Prasanna Kumar S N, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



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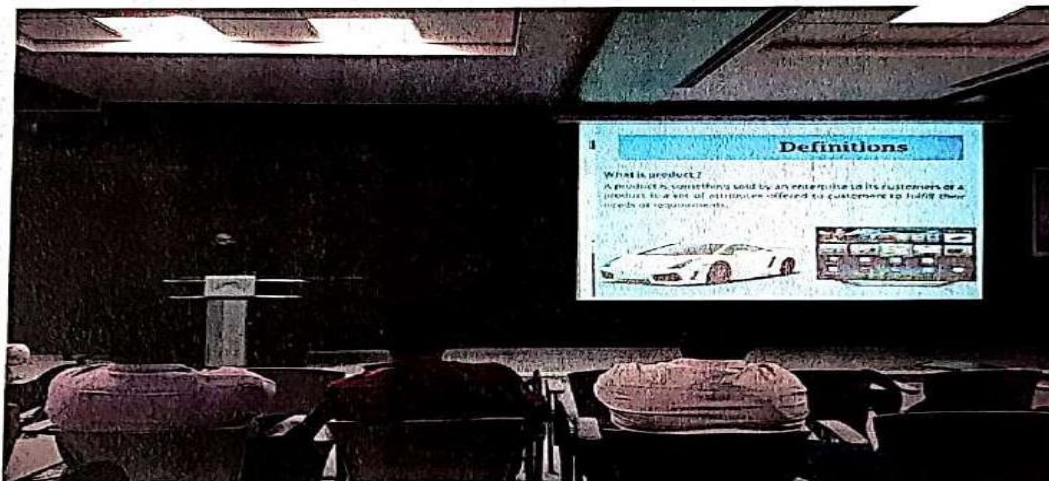
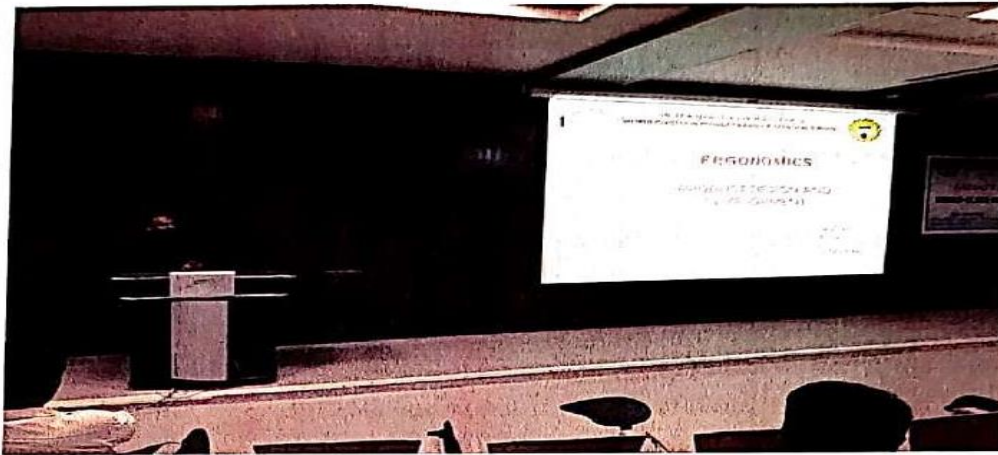
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**Day-9 & Date:09-01-2018**

**Technical session-20:**

**Topic: Impact Characteristics on Composite Structures**

**Resource Person: Dr. N Rajesh Mathivanan, Professor, PES University, Bangalore**

In the ninth day of technical talk a very well known professor from PESIT University Dr. N Rajesh Mathivanan started his talk by giving brief introduction of Composites and its impact characteristics.

The use of composite materials has expanded significantly across civil, aerospace, and marine structures in both new designs and retrofits. The performance benefits from composites—typically, weight reduction with increased strength, corrosion resistance, and improved thermal and acoustic properties—are challenged by a by a host of failure modes whose genesis and progression aren't yet well understood. Correlation of the residual indentation and cross-sectional views of the impacted specimens provide a criterion for the extent of the damage.

Mr. Deepak U S , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



**Technical session-21:**

**Topic: Intellectual Property Rights**

**Resource Person: Dr. R Nagaraj, Director, The Oxford Educational Institutions, Bangalore**

In this session Mr Harish Kumar M, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

The Director of our College gave a brief note on Intellectual property rights i.e Intellectual property (or "IP") is a category of property that includes intangible creations of the human intellect, and primarily encompasses copyrights, patents, and trademarks. It also includes other types of rights,

Dept. of Automobile Engg, The oxford college of Engg, Bangalore

Page 19



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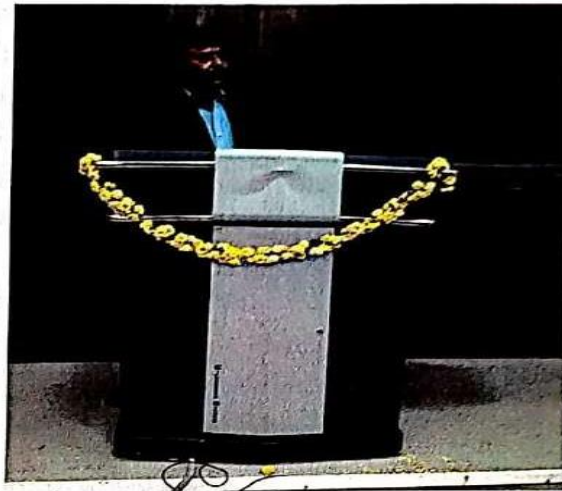
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such as trade secrets, publicity rights, moral rights, and rights against unfair competition. Intellectual property rights refer to the general term for the assignment of property rights through patents, copyrights and trademarks. These property rights allow the holder to exercise a monopoly on the use of the item for a specified period. Examples: Utility patents: For tangible inventions, such as machines, devices, and composite materials, as well as new and useful processes.

Mr. Deepak U S, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



### **Technical session-22:**

**Topic: Fastening of Laminated Composites-Methods, Testing & Failure Analysis**

**Resource Person: Dr. K V Arun, Professor, GEC, Haveri**

In the afternoon session Mr Maruthi S B, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Dr. K V Arun gave knowledge on recent trends and advancements in the manufacturing and cost reduction of composite materials has increased their usage in the transportation, industrial, and many other markets in addition to their traditional use in the aerospace field. On the other hand, analytical and FE stress predictions along the fastener hole. Failure Analysis of Bolted Joints in Cross-ply Composite Laminates. Based on the literature review of state-of-the-art techniques the tests were conducted at room temperature with a Hounsfield electromechanical.





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Mr. Prasanna Kumar S N, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



### Technical session-23:

Topic: TQM & Six Sigma

Resource Person: **Dr. H Ramakrishana Vice-Principal, DSCE, Bangalore**

In this session Mr Sapthagiri Prasad, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

**Dr. H Ramakrishana** Six Sigma and Total Quality Management are effective tools for quality management but a thin line of difference does exist between them. Although the methodologies and procedures involved in both the two appear quite similar but there are certain major differences. The main focus of Total quality management is to maintain existing quality standards whereas Six Sigma primarily focuses on making small necessary changes in the processes and systems to ensure high quality.

Mr. Hemantha C , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.







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**Day-10 & Date: 10-01-2018**

**Technical session-24:**

**Topic: Deep Learning in Automobile Technology**

**Resource Person: Dr. R J Anandhi, Vice-Principal, TOCE, Bangalore**

In the Tenth day of technical talk, Mr Sapthagiri Prasad, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates. Vice-Principal gave a talk on future self driving cars and the deep learning of Automotive Technology.

An autonomous car also known as a driverless car, self-driving car, robotic car, and unmanned ground vehicle is a vehicle that is capable of sensing its environment and navigating without human input. She also said about SAE regulations and its autonomy levels of how advanced driver-assistance systems work. She concluded her talk with explaining the High Level View of data collection system.

Mr. Harish Kumar, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



**Technical session-25:**

**Topic: Creativity in Concept Development**

**Resource Person: Dr. S M Kulkarni Professor, NITK, Surathkal**

In the afternoon session Mr Harish Kumar M, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Dr. S M Kulkarni, delivered his speech by giving outline on Product Development Procedure Concept Development, Creativity in Concept, Generation, General Problem, Solving Model Limitations of the model, Tool for Inventive Problem Solving. He also explained about the

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objectives of creativity in concept development i.e To be able to apply creativity techniques to problem solving. To understand how creativity can be used to transform technology into product concepts. To be able to draft value propositions and business models that result from product ideation. The participants were very happy and satisfied by his new topic Triz, its history and the procedure to carry out the experiments by using Triz method.

Mr. Priyankar Dhole , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



#### Technical session-26:

Topic: **Dr. N Mohan, Professor, Dr.AIT, Bangalore**

Resource Person: **Tribo-Mechanical behaviour of fiber Reinforced Composite Materials in Automobile Applications**

In the afternoon session Mr Raviteja R N, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and Resource person.

Dr. N Mohan present talk , aims at investigating the role of graphite , Silicon Carbide , Tungsten Carbide, Tantalum Niobium Carbide, and Natural Jatropa oil Cake on the mechanical properties and Tribological behavior of glass fabric-epoxy composite systems having same level of concentration of fillers. He concluded his talk by explaining how composites play a vital role in Automobile fields.

Mr. Prasanna S M, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



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## Technical session-27:

Topic: **Role of Electronics in Automobile**

Resource Person: **Dr. J Ravi, Professor, GAT, Bangalore**

In this session Mr Maruthi S B, Assistant professor, Department of Automobile Engineering, presented a welcome note addressing the gathering and delegates.

Professor J. Ravi introduced his topic by giving the present scenario of Electronics in the new product development and manufacturing and the also transferred a knowledge of Embedded systems, automotive sensors and how antilock braking system. The highlight of the talk was the future trends in automotive industry.

Mr. Priyankar Dhole, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.







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**Day-11 & Date: 11-01-2018**

**Technical session-28:**

**Topic: Reliability Engineering in Solar Thermal Systems**

**Resource Person: Dr. Eswarmoorthy M, Professor, ACSCE, Bangalore**

The morning session of 11<sup>th</sup> day, Mr Prasanna S M, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Dr. Eswarmoorthy sir talks were on the outline of introduction, economic reliability of solar energy, physical reliability of solar energy, environmental reliability of solar energy and the research opportunities. He also discussed on the future opportunities of Reliability engineering.

Mr. Sapthagiri prasad, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



**Technical session-29:**

**Topic: Overview of Additive Manufacturing Technologies**

**Resource Person: Dr. C K Srinivas Professor, MIE&S, Maddanapalli**

In this session Mr Hemantha C, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Professor C K Srinivas delivered his talk on Additive Manufacturing which is a new Technology to produce parts with complex geometry in a short time. He also said about the future opportunities of Additive manufacturing and the national scenario of manufacturing in the present generation.

Mr. Deepak U S , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



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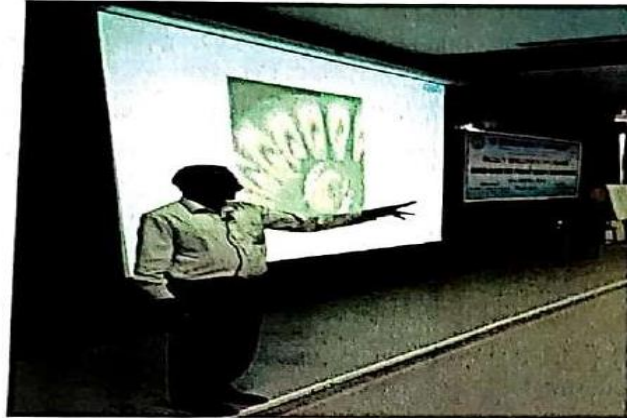
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#### **Technical session-30:**

Topic: Innovative Product for Better Life

Resource Person: **Dr. S B Mallur, Professor & Head, UBDTCE, Davangere**

In the afternoon session Mr Hemantha C, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Dr S B Mallur delivered his talk on the introduction of innovative things/products which is an emerging trend in this Era . He discussed on Product innovations are not to be confused with inventions and also the risks and returns in new-product development.

Mr. Priyankar Dhole , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.







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### Technical session-31:

Topic: Thermally assisted Machining of High Chrome White Cast Iron

Resource Person: **Dr. A M Ravi Faculty, DTE, Harihar, Davangere**

In the Last session Mr Hemantha C, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates

Dr. Ravi presented the influence of tool temperature on cutting forces in the thermally enhanced machining of high chrome white cast iron using cubic boron nitride tool by experimentally. He also discussed about the mechanical properties of High Chrome white cast iron.

Mr. Priyankar Dhole , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



Thermally enhanced Machining



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**Day-12 & Date: 12-01-2018**

**Technical session-32:**

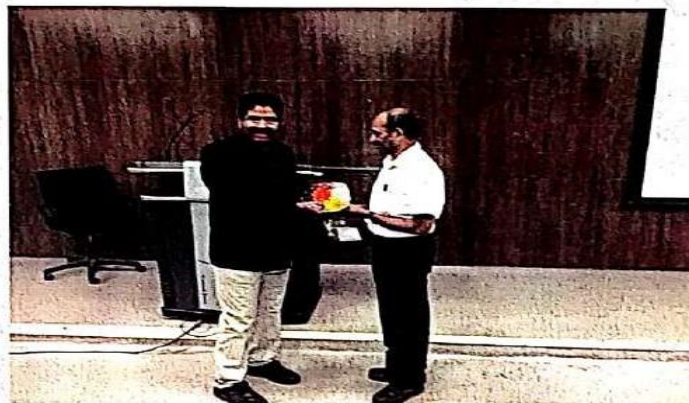
Topic: Internet of Things

Resource Person: **Sri. S K Vijay General Manager, TVS Motors Company Ltd., Hosur**

In the Twelveth day of technical talk, Mr Sapthagiri Prasad, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Sri. S K Vijay delivered his talk on the The Internet of things (IoT) and gave complete explanation on the network of physical devices, vehicles, home appliances and other items embedded with electronics, software, sensors, actuators, and connectivity which enables these objects to connect and exchange data. He also said the various advantages and applications of IOT of future automobile and manufacturing industries.

Mr. Prasanna S M , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.



**Technical session-33:**

Topic: Finite Element Analysis used in PDM

Resource Person: **Mr. Goaplakrishna C Consultant, Fluidyn, Bangalore**





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#### **Technical session-34:**

Topic: Recent Advanced in Fabrication Polymer based Composite ion Engg. Applications

Resource Person: **Dr. B Suresha Dean R & D, NIE, Mysore**

In this session Mr Hemantha C, Assistant professor, Department of Automobile Engineering presented a welcome note addressing the gathering and delegates.

Dr. B Suresha started his talk by telling current advanced fabrications in engineering applications and said about the New classes of polymeric materials with unique applications, and the future scopes in the design and development .

Mr. Priyankar Dhole , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.





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**Technical session-35:**

Topic: Parameters/Procedure for Diesel Engine Exhaust System

Resource Person: **Dr.Ganesh Prasad, Professor & Head, New Horizon college of Engg., Bangalore**

The last session of our FDP was carried by Professor Ganesh Prasad who explained about the parameters of diesel engine exhaust system. He also described about the concentration of each pollutant, exhaust flow and power output.

Mr. Prasanna S M , Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.







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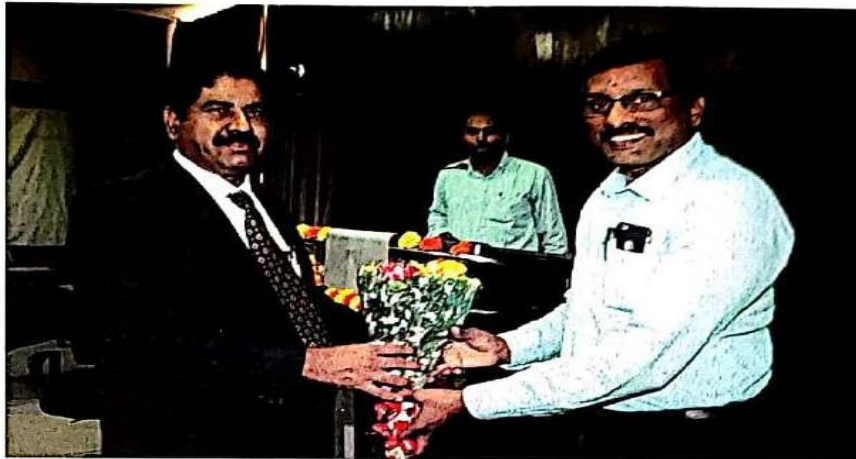
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**Day-13 & Date: 13-01-2018**

**Technical session-36:**

Topic: Optimization in Manufacturing System

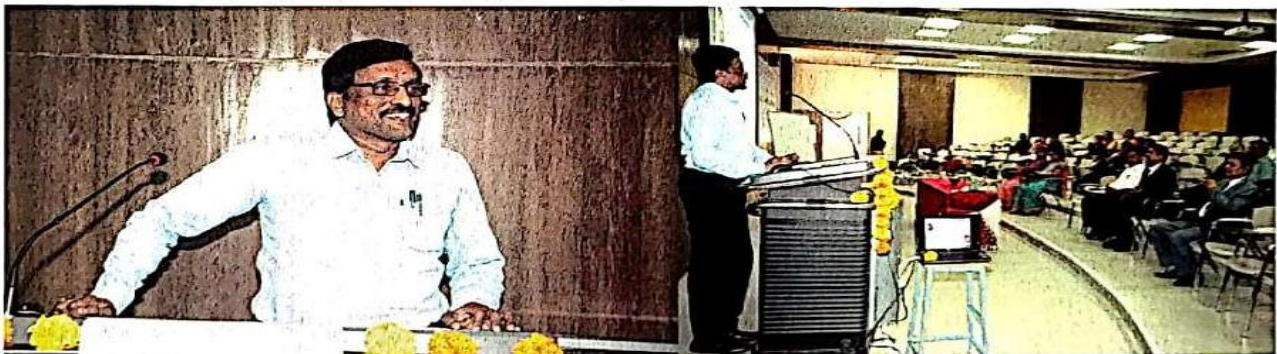
Resource Person: **Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., Bangalore**



**Technical session-37:**

Topic: Optimization in Manufacturing System

Resource Person: **Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., Bangalore**







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### **Valedictory Function:**

On the valedictory ceremony, Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., Bangalore join the session as a chief guest, along with Dr. R Nagaraj, Director of The Oxford Group of Institutions, Bangalore, Dr. R J Anandhi, Vice Principal, The Oxford College of Engineering, Bangalore, Dr. Raju B R, FDP Coordinator, Professor and Head, Department of Automobile Engineering, Dr. N B Doddapattar, Prof & Head, Dept of Mechanical, TOCE, Bangalore

On this occasion, Dr. R Nagaraj, Director of The Oxford Group of Institutions in his address, appreciates Dr. Raju B R, FDP Coordinator along with her team, for successful completion of the program.

Dr. Raju B R, FDP Coordinator, welcomes, Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., chief guest of the valedictory ceremony and resource person of the session along with advisory board, media persons and all the dignitaries and delegates presented on valedictory session.

At the end, the valedictory session was concluded with a vote of thanks given by Mr. Sandeep Kumar K Chavan, Assistant Professor, Dept. of Automobile Engg., in which he has been paid his gratitude towards all the dignitaries who have spared their time and come from a far distance place to share their expertise with the participants. He has also thanked the media persons for their continuous coverage of the entire programme.

Nevertheless, he has given thanks to the sponsoring body of this FDP i.e. AICTE with these words, "We are highly thankful to the AICTE for providing financial assistance to organize this FDP in our campus and hope we will find the support in future also for organizing such kind of activities."

### **Feedback from the Participants:**

The feedback of the participants was very positive and motivational for the organizers. All the participants appreciated the pick and drop facility, food, lodging and boarding arrangements of the institute. Moreover, all the resource persons were of repute in their respective fields and the knowledge imparted by them was very useful in their forthcoming academic endeavors.





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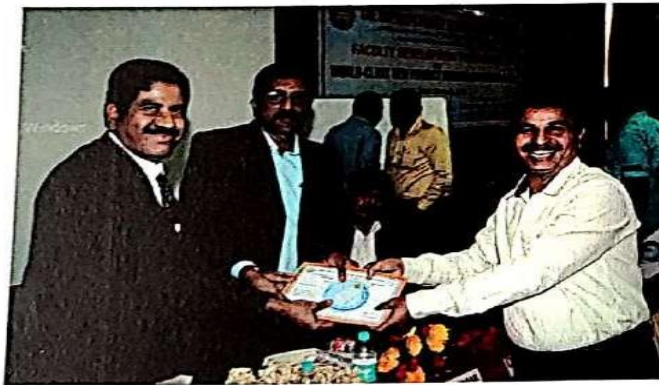
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### Valedictory Function:







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Dept. of Automobile Engg, The oxford college of Engg, Bangalore

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*Ravi*  
**Professor & Head**  
Department of Automobile Engineering  
The Oxford College of Engineering  
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### Typing Skills-Learn Typing with Shortcut Keys

Date: 06.03.2018



Children's Education Society

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### Department of Automobile Engineering

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on

06.03.2018

by

**Dr M S Shashidhara**

Professor & HOD Dept of MCA  
The Oxford College of Engineering

Venue :5<sup>th</sup> Floor Seminar Hall  
Time :11AM



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**Report on Typing Skills-Learn Typing with Shortcut Keys**

**Date:** 06.03.2018

The Oxford College of Engineering organized a one-day workshop on "Typing Skills-Learn typing with shortcut keys " on 06.03.2018 at 5th floor new building. The Many benefits of learning how to type fast and accurately are save time. Typing is something most of us will have to do a lot of in our jobs, Be More Productive, Better Accuracy etc. Few Techniques to improve the typing skills were taught such as usage of shortcut keys

There was a discussion and the queries asked by the employees were resolved Dr. Shashidhara, HOD Department of MCA, The Oxford College of Engineering, Bengaluru. Discussion Session was quite interesting & helpful to resolve many doubts of the participants. 39 participants attended the program.



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**The Oxford College of Engineering**  
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**Hygiene, quality and cleanliness in mess and canteen**

**Year 2017-18**

Date : 15<sup>th</sup> March  
2018 Time :  
10:00AM

Venue: 5<sup>th</sup> Floor Seminar Hall  
New Building,  
TOCE





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Professor and HOD  
Department of Automobile

**Dr. Shashidhar**

Professor and HOD  
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**Faculty Coordinators**

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Department of Mathematics



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DATE	TIME	TOPIC	SPEAKER
15th Mar 2018	10:00 - 11:00 AM	About personal hygiene, cleanliness, and quality of food	Dr. Raju HOD Department of Automobile The Oxford College of Engineering, Bengaluru
15th Mar 2018	11:00 - 12:00 NOON	Behaviour and Body language	Dr. Shashidhar HOD Department of MCA The Oxford College of Engineering, Bengaluru





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Bommanahalli, Hosur Road, Bangalore - 560 068.

Ph: 080-61754601/602, Fax: 080 - 25730551

E-mail: engprincipal@theoxford.edu Web: www.theoxfordengg.org

## **REPORT**

"The oxford college of engineering organized a one day programme on "HYGIENE, QUALITY AND CLEANLINESS IN MESS AND CANTEEN" this is on 15th Mar 2018 at seminar hall 5<sup>th</sup> floor new building . The main objective of this programme is to maintain personal hygiene of the employees, cleanliness of the canteen and hostel premises, quality of food and appearance and behavior of the employees towards the students . And later regarding the various issues, problems being faced while working and how to come out of it. Dr. Raju, HOD Department of Automobile The Oxford College of Engineering, Bengaluru And Dr. Shashidhar, HOD Department of MCA The Oxford College of Engineering, Bengaluru resolved the queries asked by the employees. Discussion Session was quite interesting and helped to resolve many doubts of the participants.



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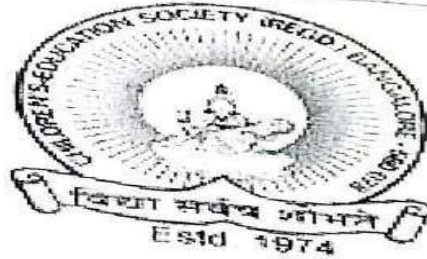
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**2018-19**

**Python and Machine Learning**



**THE OXFORD COLLEGE OF ENGINEERING**

**DEPARTMENT OF ISE**

**INVITES**

**For**

**CSI Workshop**

**On**

**“Python & Machine Learning”**

**By**

**Mr. Pruthvi B Patil**

**(Vice President , Palle Technologies ,Pvt Ltd,Bangalore)**

**Date: 14<sup>th</sup> & 15<sup>th</sup> March 2019**

**Venue: IV Floor Seminar Hall**

**Timings: 09:00 am to 04:00 pm**





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Department of Information Science and Engineering  
Hosur Road, Bommanahalli, Bengaluru-560 068  
080-30219601/02, Fax : 080-25730551, 30219629,  
website: www.theoxford.edu Email : engprincipal@theoxford.edu

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13/03/2019

## Circular

### CSI-Workshop on "Python and Machine Learning".

This is to inform all faculty and students of B.E 6<sup>th</sup> SEM, there will be an CSI-Workshop on "Python and Machine Learning", which is scheduled on 14/03/19 & 15/03/19 (Thursday & Friday ) from 9:00am to 4:00 pm in IV Floor Seminar Hall. The Resource person is Mr. Pruthvi B Patil, Vice President , Palle Technologies , Bangalore.

#### Faculty Coordinators

- 1) Mr. Karthik Raj S L -
- 2) Mr. Yadhu Krishna -

#### Student Coordinators

- |                   |      |
|-------------------|------|
| 1. Gurushekar     | VI-A |
| 2. Mahalakshmi    | VI-A |
| 3. Ritesh         | VI-B |
| 4. Shwetha Balaji | VI-B |

HOD-ISE

Class Teacher's & Mentors  
This is for your informant  
I<sup>st</sup> year - A -   
B -

II<sup>nd</sup> year - A -   
B -

III<sup>rd</sup> year - A -   
B -

IV<sup>th</sup> year - A -   
B -

parallel Course -



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## Proposal for 2 Days Python Technology Workshop

### **Objective**

- ✓ Upskill students of **The Oxford College of Engineering** by providing 2 days workshop on  
+ Python Technology

### **Workshop Methodology**

- ✓ Palle Technologies provides Technology Concepts with Hands-on Coding experience to apply the concepts in real time,
- ✓ This means students will be proficient in theory as well as in practically implementing the concepts.
- ✓ Apart from the main trainer **10+ Co-Trainers** will be involved in the workshop to help students do required coding.
- ✓ Contents for the workshop attached as Annexure "**Contents for Workshop**"

### **Workshop Certificate**

1. Palle Technologies being a NASSCOM Member and ISO Certified Organization will provide certificate for all the Participant students.

### **Trainers Profile**

#### Mr. Palle Satish Reddy

A Multi-Skilled IT Expert with 15+ yrs of experience Designing, Developing and Architecting Mobile Applications, Enterprise wide Applications, Business Solutions for various industry domains, His latest assignment was with Samsung Architecting Android libraries when Android was being implemented on Samsung Mobile Phones.

He is a great trainer who has several accomplishments training corporate professionals on Android, Python and Java Technologies.

As a Co-Founder and CEO of Palle Technologies, He has been contributing to IT Industry by delivering highly knowledgeable trained professionals on Java and Android.

#### Mr. Lokanatha Reddy

A Multi-Skilled IT Expert with 15+ yrs of experience Designing, Developing and Architecting web based Applications, Enterprise wide Applications, Business Solutions for various industry domains, His latest assignment was with Dell Services Architecting Enterprise wide applications.,

He is a great trainer who has several accomplishments training corporate professionals on MS Technologies with SQL Server Database, Front End and Code Behind.

As a Co-Founder and MD of Palle Technologies, He has been contributing to IT Industry by delivering highly knowledgeable trained professionals on Microsoft Technologies.





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## Contents for Workshop

### Day 1 : Python introduction

- a. Python interactive interpreter
- b. Python Data types
- c. Python strings and lists in interpreter
- d. Reading values from keyboard
- e. Operators
- f. Python sequences – Lists, Sets, Tuples, Strings, Range
- g. Dictionary
- h. Conditional statements – if, if else, elif
- i. PyCharm editor
- j. Debugging techniques
- k. Loops – for and while
- l. Loops with range
- m. Break, continue, pass keywords
- n. Functions
- o. Calling Functions
- p. Functions with parameters
- q. Returning values from Functions
- r. Types of parameters
- s. Positional parameters, Keyword parameters, default parameters
- t. Arbitrary parameters, arbitrary key worded parameters

### Python Object Oriented Features

- a. Types of variables
- b. Local variables and global variables
- c. Modules
- d. Importing modules
- e. Class, Object
- f. Encapsulation
- g. Creating objects and accessing functions
- h. Constructor
- i. Calling `__init__`
- j. Memory of objects
- k. `__init__` and self keyword
- l. Object properties with self
- m. Instance variables vs class variables
- n. Instance methods, static methods, class methods
- o. Function overloading
- p. Inheritance
- q. Constructors in inheritance
- r. Types of inheritance
- s. Function overriding



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- t. Inheritance and super keyword
- u. Dynamic typing
- v. Polymorphism & duck typing
- w. Operator overloading

**Day 2: Exceptions, Threads, Data structures, Files**

- a. Types of errors
- b. Handling errors
- c. Try, except, finally blocks
- d. Multi threaded programming
- e. Creating threads in python
- f. Lists, list methods
- g. Sets, tuples, range with methods
- h. Stack
- i. Queue
- j. Deque
- k. Dictionary
- l. List comprehension
- m. 2D list comprehensions
- n. Creating files
- o. Reading from files
- p. Writing to files
- q. File IO functions

**Machine Learning and Data Science**

- a. Introduction to Machine Learning
- b. Introduction to Data Science
- c. Data Analytics with Matplotlib Framework







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**Workshop on Mentor Graphics & Xilinx (ECE)**

# The Oxford College of Engineering

Bommanahalli, Bengaluru – 560068



*A Workshop Report on*

**“Mentor Graphics & Xilinx”**

**Bachelor of Engineering**

**In**

**Electronics & Communication Engineering**

On 15 March 2019



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Technologies

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## One Day Presentation

### Mentor Graphics Agenda

#### **Full Custom Design Flow**

Schematic Entry, Spice Models, Simulation  
DC Analysis and Transient Analysis

#### **Layout entry**

Schematic driven Layout  
Physical Verification Using Industry Standard Calibre Tool ( DRC, LVS, xRC)

#### **Semi Custom Design Flow**

Design Entry (Verilog): Functional Verification with Questasim  
Synthesis using Precision/Leonardo

### Xilinx Agenda

#### **Vivado Design Flow**

Use Vivado IDE to create a simple HDL design. Simulate the design using the XSIM HDL simulator available in Vivado design suite. Generate the bitstream and verify in hardware.

#### **Synthesis Technique**

##### **Synthesizing a RTL Design**

Synthesize a design with the default settings as well as other settings changed and observe the effect.

#### **Implementation and Static Timing Analysis**

##### **Implementing the Design**

Implement the synthesized design of previous lab, perform timing analysis, generate bitstream, download the bitstream and verify the functionality.

#### **Hardware Debugging**

Use Mark Debug feature and also available Integrated Logic Analyzer(ILA) core (available in IP Catalog) to debug the hardware.

CoreEL Technologies (I) Pvt. Ltd. 21, 1st Block, 7th Main, Koramangala, Bangalore 560 034  
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## Report

**Workshop: Mentor Graphics and Xilinx**

**By: Mr. Vijendra, Application Engineer at CaeS.I. Technologies, Bangalore**

**Date: 15/03/2019 (Friday)**

**Pattern of session:**

- Theory Session
- Hands-On Session

**Professor & HOD of E&C Engineering**  
**The Oxford College of Engineering**  
**Bommanahalli, Bangalore - 560 068.**



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## Theory Session

The workshop began at 11 am by Mr. Vijendra who is an application engineer at CoreEL technologies.

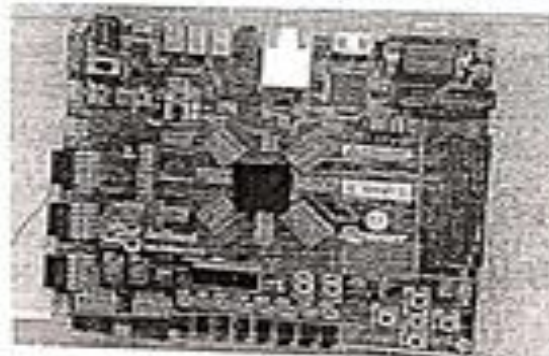
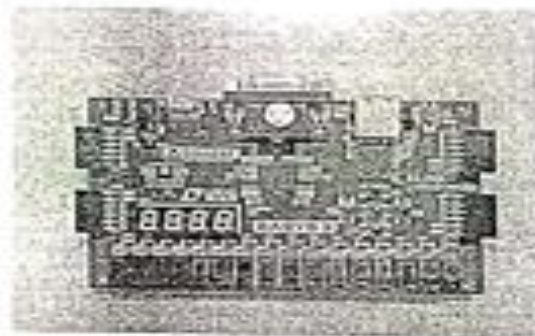
### Topics Covered:

- FPGA vs ASIC
- ASIC Design Flow
- Architecture of FPGA and ASIC
- Different Simulation Tools
- Introduction to Stick diagrams and Mask Encoding Diagrams
- Introduction to Xilinx Vivado

The session was interactive and helped the students learn new topics.

Gave the students industrial level knowledge of chip designing.

The students got an idea with new technologies used in the market.







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**Time Management Skills**

**Date: 04.12.2018**



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Hosur Road, Bommanahalli, Bangalore - 560068

**Department of Electrical and Electronics Engineering**

**Organizing**

**Training on Time Management Skills**

on  
**04.12.2018**  
by  
**Dr. Tharaka Rami Reddy**  
Professor / Dept of MBA  
The Oxford College of Engineering

**Venue : 6<sup>th</sup> Floor Seminar Hall**  
**Time : 10AM**

**Faculty Coordinators**  
**Prof. Nisha C Rani ,**  
**Prof. Resma S R**  
Assistant Professor  
The Oxford College of  
Engineering

**Chief Patron**  
**Sri S.N.V.L. Narasimha Raju**  
President  
The Oxford Educational Institutions

**Convener**  
**Dr. Bharath V S**  
HOD/EEE  
The Oxford College of  
Engineering





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**Report on Time Management Skills**

**Date:** 04.12.2018

The Oxford College of Engineering organized a one-day workshop on " Time Management skills " on 04.12.2018 at 5th floor new building. The main objective of this programme are to make the participants aware of how to achieve better results through effective planning and clarifying objectives, spend more time working toward your high-value goals and prioritize various tasks and perform accordingly

There was a discussion about various issues and the queries asked by the employees were resolved Dr. V S Bharath, HOD Department of EEE, The Oxford College of Engineering, Bengaluru. Discussion Session was quite interesting & helpful to resolve many doubts of the participants.





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Director, The Oxford Educational Institutions

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Principal, The Oxford Educational Institutions

**Conveners**

**Dr. B. R. RAJU**  
Professor & HOD,  
Department of Automobile

**Dr. SHASHIDHARA M S**  
Professor & HOD  
Department of MCA

**Faculty Coordinators**

**RAGHU K**

Assistant Professor,  
Department of Mechanical Engineering



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DATE	Sl. No	TIME	TOPIC	SPEAKER
19th Apr 2019	1	9:00-11:00AM	Security Awareness Basics	<b>Dr. B.R.Raju,</b> Professor & HOD Dept. of Automobile,
	2	11:15AM-1:15PM	Security Awareness Essentials	TOCE, Bengaluru.
	LUNCH BREAK			
	3	2:00 - 5:00 PM	Security Training and Threat Awareness	<b>Dr. Shashidhara M.S,</b> Professor & HOD Dept. of MCA, TOCE, Bengaluru





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**The Oxford College of Engineering**

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**DISCIPLE AWARENESS PROGRAM FOR  
COLLEGE SECURITY PEOPLE**

**YEAR 2018 - 19**

Date : 19<sup>th</sup> April 2019  
Time : 10:00AM

Venue: 6<sup>th</sup> Floor Seminar Hall  
New Building, TOCE



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**Report**

The oxford college of engineering organized a one-day programme on “Disciple awarenessprogram for college security people” this is on19th April 2019 at seminar hall 6<sup>th</sup> floornew building. The main objective of this programme is tosecurity awareness basics, security awareness essentials and security training and threat awareness regarding the variousissues, problems being faced while working and how to come out of it. Dr. Raju, HOD Department of Automobile. The Oxford College of Engineering, Bengaluru And Dr. Shashidhar, HOD Department of MCA The Oxford College of Engineering, Bengaluru resolved the queries asked by the employees. Discussion Session was quite interesting and helped to resolve many doubts of the participants.





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Department of Automobile

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**SYED FIROZUDDIN**

Assistant Professor,  
Department of Mechatronics



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DATE	TIME	TOPIC	SPEAKER
15 <sup>th</sup> March 2019	10.00am To 12.30pm	About safety precaution, cleanliness, facility provided quality of work, appearance & behavior with co-worker.	Dr. <u>Raju</u> HOD Department of Automobile The Oxford College of Engineering, Bengaluru
15 <sup>th</sup> March 2019	1.30pm To 3.30pm	Various social issues, problem being faced while working & how to cope up with it. Resolved the queries asked by the employee.	Dr. M.S. <u>Shashidhara</u> Prof & HOD Department of MCA The Oxford College of Engineering, Bengaluru





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# The Oxford College of Engineering

Bommanahalli, Bangalore - 560068

## **ELECTRICIAN, PLUMBER & GARDENER** **AWARENESS PROGRAMME**

### **YEAR 2018 - 19**

Date : 15<sup>th</sup> March 2019  
Time : 10:00AM

Venue: 6th Floor Seminar Hall  
New Building, TOCE



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**Discipline Awareness Program for College Security People**

**Report**

**Date:15/03/2019**

The oxford college of engineering organized a one day workshop on "Awareness Programme For Electrician, Plumber, Carpenter & Stp Workers" on 15 March 2019 at the seminar hall 5th floor new building. The main objective of this programme is to aware them about safety precaution, cleanliness, facility provided, quality of work, appearance and behavior with employees. After that regarding various issues, problems being faced while working and how to cope up with it. Dr. Raju, HOD Department of Automobile the Oxford College of Engineering, Bengaluru resolved the queries asked by the employees. Discussion Session was quite interesting & helpful to resolve many doubts of the participants.





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**2019-20**

**Python Programming**



**THE OXFORD COLLEGE OF ENGINEERING**

**DEPARTMENT OF ISE**

**INVITES**

**For**

**CSI EXPERT LECTURE**

**On**

**“Python Programming one day workshop”**

**By**

**Mr. Akash Gautam**

**(Director of Appstone Pvt Ltd, Bangalore)**

**Date: 18<sup>th</sup> November 2019**

**Venue: IV Floor Seminar Hall**

**Timings: 9:00 am to 04:15 am**



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**DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING**  
**THE OXFORD COLLEGE OF ENGINEERING**  
Hosur Road, Bommanahalli, Bengaluru-560 068  
Website: [www.theoxford.edu](http://www.theoxford.edu) Email : [engprincipal@theoxford.edu](mailto:engprincipal@theoxford.edu)  
(Approved by AICTE, New Delhi, Accredited by NBA, New Delhi & Affiliated to VTU, Belgaum)

## Report on CSI-One Day Workshop on Python

The Department of Information Science & Engineering, The Oxford College of Engineering organized CSI-One day workshop on "PYTHON PROGRAMMING" on 18<sup>th</sup> November 2019, venue was new building 4<sup>th</sup> floor seminar hall. The guest was Mr. Akash Gautam, Director of Appstone, Pvt Ltd, Bangalore

The Event started with invocation song by Ms. Dharani 5<sup>th</sup> Semester ISE, followed by welcome address by Mr. Dawood 3<sup>rd</sup> Semester ISE, The CSI workshop was preceded by a short talk by Dr. R. Kanagavalli, HOD -ISE, TOCE. In her talk she emphasized the importance of the Python Programming in the real world.

The Lecture started around 09:00 AM and ended around 03:30 PM.

### **Points discussed in Workshop are: -**

Variables, Expressions & Statements.

Conditional Execution.

Functions.

Iterations.

Strings.

Files & Lists.

Dr. R. KANAGAVALLI  
PROFESSOR & HOD-ISE  
The Oxford College Of Engineering  
Bommanahalli, Hosur Main Road,  
Bangalore 560 068.





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**Balancing Personal and Professional life**

Date :03.10.2019



Children's Education Society

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**Hosur Road, Bommanahalli, Bangalore -560068**

**Department of Electrical and Electronics Engineering**

**Organizing**

**Balancing Professional life and  
Personal life**

on

**03.10.2019**

by

**Dr Tharaka Rami Reddy**

**Professor /Dept of MBA**

**The Oxford College of Engineering**

**Convener**

**Dr Bharath V S**

**HOD/EEE**

**The Oxford College of  
Engineering**



**Venue :5<sup>th</sup> Floor Seminar Hall  
Time :10AM**

**Faculty Coordinators**

**Prof. Nisha C Rani ,**

**Prof Resna S R**

**Assistant Professor**

**The Oxford College of  
Engineering**

**Chief Patron**

**Sri S.N.V.L.Narasimha Raju**

**President**

**The Oxford Educational Institutions**



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**Report Balancing Personal and Professional life**

**Date :03.10.2019**

The Oxford College of Engineering organized a one-day workshop on "Balancing Personal and Professional life" on 3rd October 2019 at 5th floor new building. The main objective of this programme are

- Realize the advantages of a work-life balance.
- Identify the signs of an unbalanced life and the effects of it.
- Learn the techniques for a balanced lifestyle.
- Learn to communicate effectively and draw boundaries.
- Learn time management skills by setting the right priorities.
- Develop their goal-setting Skills.
- There was a fruitful discussion about various issues and the queries asked by the employees were resolved by Prof. Tharaka Rama Reddy, Department of MBA. The Oxford College of Engineering, Bengaluru. Discussion Session was quite interesting & helpful to resolve many doubts of the participants. 45 participants attended the program.





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**Training in Internet surfing**

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**Hosur Road, Bommanahalli, Bangalore -560068**  
**Department of Automobile Engineering**  
**Organizing**  
**Training on Internet Surfing**  
on  
**07.01.2020**  
by  
**Dr M S Shashidhara**  
Professor & HOD Dept of MCA  
The Oxford College of  
Engineering  
**Chief Patron**  
**Sri S.N.V.L. Narasimha Raju**  
President  
The Oxford Educational  
Institutions  
**Convener**  
**Dr B R Raju**  
HOD/AUTOMOBILE  
The Oxford College of  
Engineering  
**Faculty Coordinator**  
**Prof Maruthi**  
Assistant Professor  
The Oxford College of  
Engineering



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**Report on Training in Internet surfing**

**Date:** 07.01.2020

The Oxford College of Engineering organized a one-day workshop on "Training in Internet surfing " on 07.01.2020 at 5th floor new building. The main objective of this programme are to make the participants aware of how to search on the internet, how to complete a form and how to create a google sheet and google form. There was a discussion about various issues and the queries asked by the employees were resolved Dr. Shashidhara, HOD Department of MCA, The Oxford College of Engineering, Bengaluru. Discussion Session was quite interesting & helpful to resolve many doubts of the participants. 32 participants attended the program.





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**2020-21**

**Advances in Artificial Intelligence and Machine Learning**



CHILDREN'S EDUCATION SOCIETY  
**THE OXFORD COLLEGE OF ENGINEERING**  
Hosur Road, Bommanahalli, Bengaluru-560068  
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**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**PRESENTS**

**6 Days Faculty Development Program**  
On  
**"ADVANCES IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING"**

in association with  
**IEEE CS CHAPTER, TOCE, Bengaluru**  
(E-Certificates will be issued for the participants)

Free Registration  
Register here -  
<https://bit.ly/3w8Yy0U>

FDP link-  
<https://bit.ly/3xUwFYv>

**26<sup>th</sup> JULY – 31<sup>st</sup> JULY 2021**

Eminent Speakers			
Sl no	Dates	Forenoon session (11 AM – 12:30 PM)	Afternoon session (2 PM – 3:30 PM)
1	26-07-2021	Inauguration Ceremony & speaker session- Introduction to ML and Its Application <b>Prof. Dr. M srinivas</b> NIT, Silchar	Ensemble Learning <b>Prof. Dr. Ramalingaswamy Cheruku</b> NIT, Warangal
2	27-07-2021	Object Identification using Machine learning <b>Prof. Dr. Neelima</b> NIT, Nagaland	Recent Trends in AI <b>Prof. Dr. Vimal Kumar</b> IIM, Visakhapatnam
3	28-07-2021	The Role of Machine Learning in Cyber Security <b>Prof. Dr. Mahendra Pratap Singh</b> NIT, Surthakal	Decision Trees and Ensemble Learning <b>Prof. Dr. K V kadambari</b> NIT, Warangal
4	29-07-2021	Regression Analysis <b>Prof. Dr. Venkateswara Rao Kagita</b> NIT, Warangal	AI In Computer Vision <b>Prof. Dr. U. Srinivasulu Reddy</b> NIT, Tiruchirapalli
5	30-07-2021	Probable Research Opportunities in ML <b>Prof. Dr. Ujjwala Baruah</b> NIT, Silchar	From Cloud Computing To Edge Computing <b>Prof. Dr. Anandi Giridharan</b> IISC, Bengaluru
6	31-07-2021	Outlier and Imbalanced Concept in ML <b>Prof. Dr. Manjubala Bisi</b> NIT, Warangal	Health Care using Machine Learning <b>Prof. Dr. Pinki Roy</b> NIT, Silchar



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### About Institution

The Oxford College of Engineering (TOCE) is one of the most prestigious institutions run by the Children's Education Society. TOCE aims at carving competent students with extraordinary to face challenges of the continuous changing world. TOCE provides quality training in professional education in values in Engineering, Management and Computer Application streams. The College has 11 Research Centre's approved by VTU to carryout Ph.D. and Engineering Programmes. The institution is well known for its Consultancy & Research Development activities. Various Departments have financial assistance from reputed state (VGST/KSCST/VTU) and Central (DRDO-NRB,DAE-BRNS,AICTE,ICMR,NIF, DBTBIRAC) funding agencies to cater the need of young researchers and students in Engineering and Management.

### About FDP

Faculty Development program mainly focuses on the recent advancement in Artificial Intelligence (AI) and Machine Learning (ML) in various fields such as Industry, research and development. The Faculties, research scholars can take the benefits of the programs. The eminent speakers at our program are from IIM, NIT's, and IISC. The major topics covered in our program are Object Identification using Machine Learning, AI in computer vision, and The role of Machine Learning in Cyber Security.

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The Oxford Group of Institutions, Bengaluru

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The Oxford Educational Institutions

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Director,  
The Oxford Educational Institutions

**Dr. K M Ravi Kumar**  
Director,  
The Oxford College of Engineering

**Dr. N Kannan**  
Principal, TOCE

### ORGANIZING CHAIR

**Dr. R CH. A Naidu**  
HOD –CSE Department  
The Oxford College of Engineering

### PROGRAM COORDINATORS

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**Faculty Development Program on "Advances In AI and ML" On 26<sup>th</sup> July 2021 -31<sup>st</sup> July 2021**

**About FDP:**

Faculty Development program mainly focuses on the recent advancement in Artificial Intelligence (AI) and Machine Learning (ML) in various fields such as Industry, research and development. The Faculties, research scholars can take the benefits of the programs. The eminent speakers at our program are from IIM, NIT's, and IISC. The major topics covered in our program are Object Identification using Machine Learning, AI in computer vision, and the role of Machine Learning in Cyber Security.

**Objectives of the Program:**

The main objective of this faculty development program is to provide the theoretical fundamentals coupled with some hands-on knowledge on Artificial Intelligence and Machine Learning concept. It will help to upgrade the expertise and capabilities of the faculty members of various Engineering institutions in India. It creates a climate for research and enthusiasm for academic excellence.

**Expected Outcome:**

Faculties will be trained in the new technologies, which will help them to enable their students to learn machine learning.

**Level of activity (Regional/National/International) and target audience**

Regional

Faculties from various engineering colleges are the audience for this program.

**Organizing Chair Person**

**Dr. RCH ANaidu**

Head of CSE Department

**Program Coordinators**

**Dr. MNirmala**

Professor, CSE Department

**Ms. Florance G**

Assistant Professor, CSE Department

**Ms. Rekha P**

Assistant Professor, CSE Department



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**Inaugural Function:**

Date	Timings	ProgrammeDetails
26-07-2021	10:30 am-10:35 am	Welcomespeech byRekhaP
	10:35 am -10:40 am	Prayersong
	10:40 am -10:50 am	SpeechbyPrincipalsir
	10:50 am -11:05 am	Speechbyorganizingchairperson

**Programme Details:**

Dates	Timings	ProgrammeDetails
26-07-2021	11am-12:30pm	<b>Session1: Introduction to ML and its Application</b> Prof. Dr. MSrinivasNIT, Warangal
	2pm-3:30pm	<b>Session 2: Ensemble Learning</b> Prof. Dr. Ramalingaswamy CherukuNIT, Warangal
27-07-2021	11am-12:30pm	<b>Session3: Object Identification using Machine learning</b> Prof.Dr. NeelimaNIT, Nagaland
	2pm-3:30pm	<b>Session 4: Recent Trends in AI</b> Prof.Dr. VimalKumarMIIM, Visakhapatnam
28-07-2021	11am-12:30pm	<b>Session 5: The Role of Machine Learning inCyberSecurity</b> Prof. Dr. Mahendra Pratap SinghNIT, Surthakal
	2pm-3:30pm	<b>Session 6: Decision Trees and Ensemblelearning</b> Prof.Dr. KVkadambariNIT, Warangal
29-07-2021	11am-12:30pm	<b>Session7: Regression Analysis</b> Prof.Dr. VenkateswaraRaoKagitaNIT, Warangal
	2 pm-3:30pm	<b>Session 8: AI in Computer Vision</b> Prof. Dr. U. Srinivasulu ReddyNIT, Tiruchirapalli
30-07-2021	11am-12:30pm	<b>Session 9: Probable Research Opportunities inML</b> Prof.Dr. UjwalaBaruahNIT, Silchar
	2pm-3:30pm	<b>Session10: From Cloud Computing to Edge Computing</b> Prof.AnandiGiridharanIISC, Bengaluru
31-07-2021	11am-12:30pm	<b>Session11: Out lier and Imbalanced Conceptin ML</b> Prof.Dr. ManjubalaBisiNIT, Warangal
	2pm-3:30pm	<b>Session12: HealthCareusingMachineLearning</b> Prof. Dr. Pinki RoyNIT, Silchar
	3:30pm-4pm	<b>Valedictoryfunction</b>





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**ValedictoryFunction:**

Valedictory Function for Faculty Development Program on "Advances in Artificial Intelligence and Machine Learning "held from 26<sup>th</sup> July -31<sup>st</sup> July 2021.

**ProgramAgenda:**

Date	Timings	ProgramDetails
31 <sup>st</sup> -JULY-2021	3:30pm -3:40pm	WelcomespeechbyRekhaP
	3:40pm -3:50pm	SpeechbyHODsir
	3:50pm-3:55pm	Feedbackfromparticipants
	3:55pm -4:00pm	SpeechbyPrincipalsir
	4:00pm-4:05pm	Photosession
	4:05pm-4:15pm	Voteofthanks

**Eminent Speakers:**

Name	Designation	Organization	Activity
Dr. MSrinivas	Professor	NIT, Warangal	Keynotespeaker
Mrs.AnandiGiridharan	PrincipalResearch Scientist	IISC, Bengaluru	Sessionspeaker
Dr. MahendraPratapSingh	Professor	NIT, surthakal	SessionSpeaker



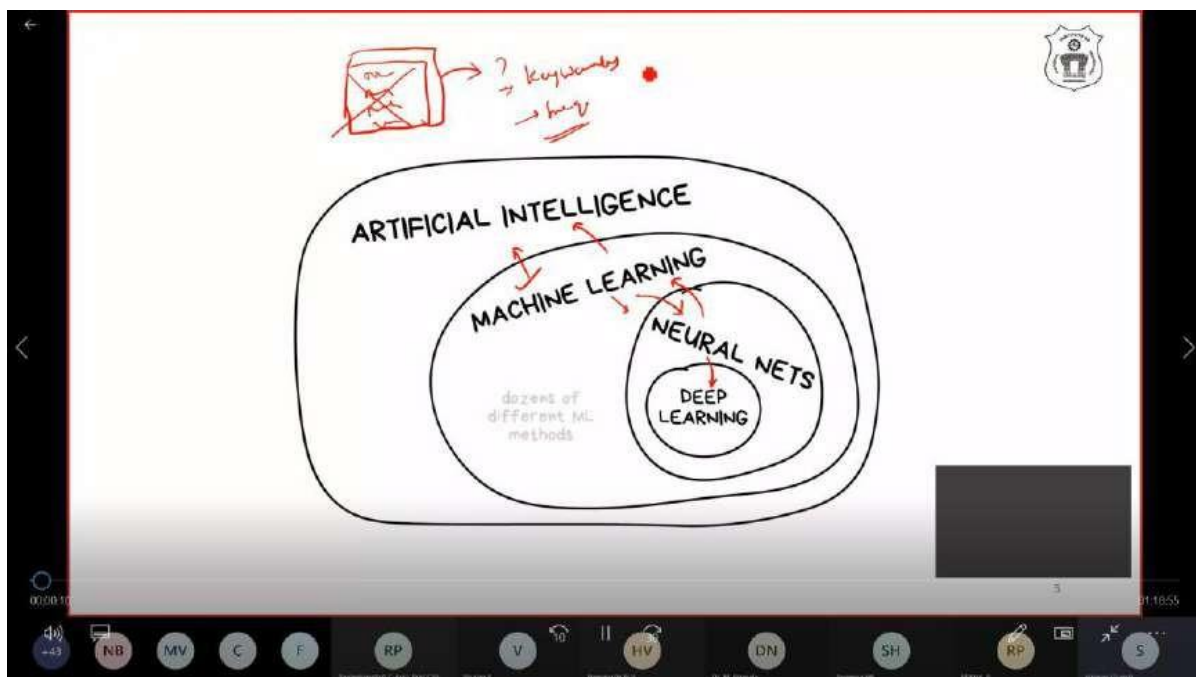
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## Introduction to ML and Applications

**Speaker:** Dr M Srinivas

**Date** 26-7-21FN

Machine Learning is a field in computer science that learns from experience without being programmed. It is a part of Artificial Intelligence, or we can say that machine learning is a sub topic of Artificial Intelligence. The science behind ML is to make computers perform actions by themselves. A Machine Learning algorithm is a generic program that will understand the data, and build models with that data. These models are available for the end users to carry out tasks. Initially, Machine Learning was just about pattern recognition. It was also defined as the ability of the computers to learn through an iterative process without being programmed explicitly. With increasing data day by day, and invent of big data, machine learning has taken a fresh turn. Now machine learning algorithms are able to automatically calculate highly complex calculations over big data. Some major example in this field includes fraud detections, online recommendations, etc. These mathematical calculations are being done at a high speed and accuracy.



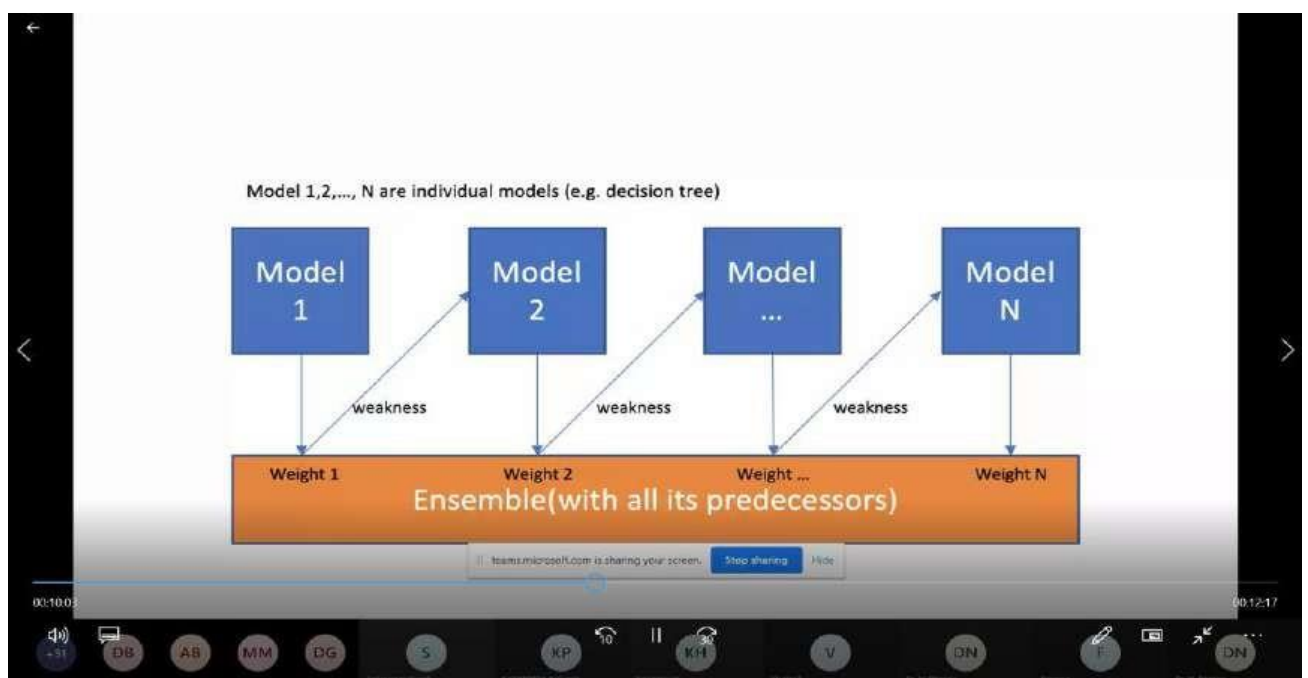




**Speaker:** Dr. Ramalingasamy Cheruku

**Date:** 26-7-21 AN

Ensemble learning refers to algorithms that combine the predictions from two or more models. Although there is nearly an unlimited number of ways that this can be achieved, there are perhaps three classes of ensemble learning techniques that are most commonly discussed and used in practice. Their popularity is due in large part to their ease of implementation and success on a wide range of predictive modeling problems. There as on ensemble learning is efficient is that your machine learning models work differently. Each model might perform well on some data and less accurately on others. For a machine learning ensemble, you must make sure your models are independent of each other or as independent of each other as possible. One way to do this is to create your ensemble from different algorithms, as in the above example. Another ensemble method is to use instances of the same machine learning algorithms and train them on different data sets. For instance, you can create an ensemble composed of 12 linear regression models, each trained on a subset of your training data.





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## Bagging



00:00:11

00:22:09







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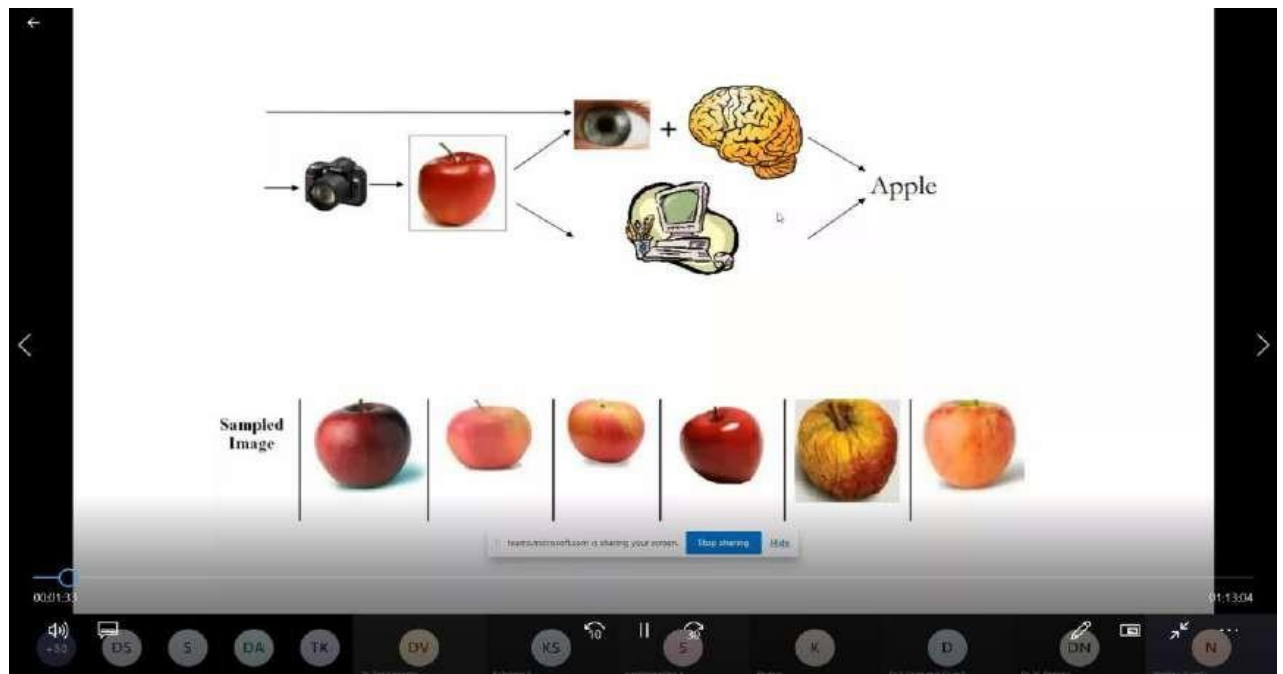
### Object identification using Machine Learning

Speaker: Dr. Neelima

Date: 27-7-21FN

An image classification or image recognition model simply detects the probability of an object in an image. In contrast to this, object localization refers to identifying the location of an object in the image. An object localization algorithm will output the coordinates of the location of an object with respect to the image. In computer vision, the most popular way to localize an object in an image is to represent its location with the help of bounding boxes.

A better algorithm that tackles the issue of predicting accurate bounding boxes while using the convolutional sliding window technique is the YOLO algorithm. YOLO stands for you only look once and was developed in 2015. It is popular because it achieves high accuracy while running in real time. This algorithm is called so because it requires only one forward propagation pass through the network to make the predictions. Learned to combine the concept of classification and localization with the convolution implementation of the sliding window to build an object detection system.





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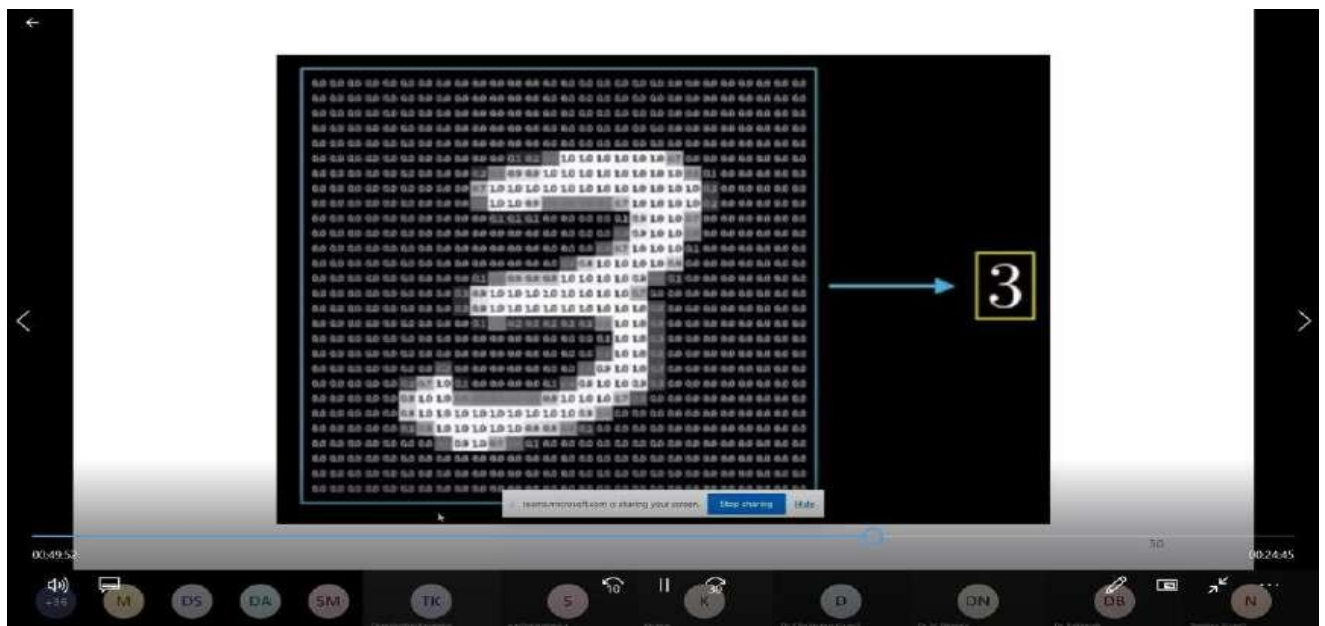
## Recent Trends in AI

**Speaker:** Dr. VimalKumarM

**Date:** 27-7-21 AN

In order to perform any human activity like cooking, household chores, etc., a RL agent needs to execute long sequence of instructions and generalise for new unseen subtasks. Sometimes, there would be other unexpected instructions like low battery, etc., which needs a deviation to be able to finish the rest of the subtasks. To achieve these goals, a generalised approach is proposed which takes sequence of tasks in natural language and executes the subtasks mostly sequential. For completing a multiple set of tasks, we need a policy that can understand the subtasks and still finish the tasks optimizing for the overall reward.

In order to regularise deep neural networks, several methods like batch normalisation, whitening neural networks (WNN) are used. To apply whitening, the computational overhead of building covariance matrix and solving SVD plays a bottle neck. Extending the class of faster computations, like FFT, Winograd, a Memory-efficient Computation (MEC) which lowers memory requirement and improves the convolution process is suggested. MEC takes rolling subsets of columns and expands them into rows to form a smaller matrix. This process is repeated along with Kernel matrix multiplication to produce efficient computation.







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### **The Role of Machine Learning in Cyber Security**

**Speaker:** Dr. Mahendra Pratap singh

**Date:** 28-7-21FN

The future of cyber security is not about man OR machine it is about man AND machine. In chess, a team of amateurs operating even standard desktop PCs dramatically outperforms both the strongest human players and the most powerful supercomputers in isolation. The secret to actionable threat intelligence lies in playing to the individual strengths of machines and human analysts. Machines perform the heavy lifting data aggregation, pattern recognition, etc. and provide a manageable number of actionable insights. From there, human analysts make decisions on how to act. One of the biggest barriers to human intelligence is language. With modern natural language processing, machines can process text irrespective of language, including slang and industry jargon. The battle in threat intelligence is balancing time and context. Analysts need intelligence promptly, but they also need enough information to decide on how to act. This is only possible using modern AI and machine-learning processes. Specifically, AI encompasses any case where a machine is designed to complete tasks which, if done by a human, would require intelligence.



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Meeting chat

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Go to Settings to activate Windows.

4 items

Type here to search

12:33 PM  
7/28/2021





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### **Decision Tress and Ensemble Learning**

**Speaker:** Dr. Kadambari

**Date:** 28-7-21 AN

Ensemble methods, which combines several decision trees to produce better predictive performance than utilizing a single decision tree. The main principle behind the ensemble model is that a group of weak learners come together to form a strong learner. Bagging or Bootstrap Aggregation is used when our goal is to reduce the variance of a decision tree. Here idea is to create several subsets of data from training sample chosen randomly with replacement. Now, each collection of subset data is used to train their decision trees. As a result, we end up with an ensemble of different models. Average of all the predictions from different trees are used which is more robust than a single decision tree. Random Forest is an extension over bagging. It takes one extra step where in addition to taking the random subset of data; it also takes the random selection of features rather than using all features to grow trees. When having many random trees, it called Random Forest. Boosting is another ensemble technique to create a collection of predictors. In this technique, learners are learned sequentially with early learners fitting simple models to the data and then analyzing data for errors. In other words, fit consecutive trees or random sample and at every step, the goal is to solve for net error from the prior tree. When an input is misclassified by a hypothesis, its weight is increased so that next hypothesis is more likely to classify it correctly. By combining the whole set at the end converts weak learners into better performing model. Gradient Boosting is an extension over boosting method.



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## Regression Analysis

**Speaker:** Dr. VenkateswaraRao

**Date:** 29-7-21FN

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modeling the future relationship between them. Simple linear regression is a model that assesses the relationship between a dependent variable and an independent variable. Multiple linear regression analysis is essentially similar to the simple linear model, with the exception that multiple independent variables are used in the model. Regression analysis comes with several applications in finance. For example, the statistical method is fundamental to the Capital Asset Pricing Model (CAPM). Essentially, the CAPM equation is a model that determines the relationship between the expected return of an asset and the market risk premium. The analysis is also used to forecast the returns of securities, based on different factors, or to forecast the performance of a business.

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Let us start with an Example". The slide content includes:

- How do we predict housing prices
- Collect data regarding housing prices and how they relate to size in feet.
- Housing price prediction.

A scatter plot is shown on the slide with "Size in feet" on the x-axis (ranging from 0 to 2500) and "Price (\$ in 1000s)" on the y-axis (ranging from 0 to 400). The plot shows a positive correlation between house size and price, with data points represented by 'x' marks.

On the right side of the Zoom window, there is a "Participants" list showing 32 people in the meeting. The list includes names and roles, such as "Dr. M. Nirmala" (Organizer), "A Rajesh" (Guest), "ANUSHA A BIDRI" (Outside your organization), "Appasami G" (Outside your organization), "Ashwini K" (Guest), "Divakara Vasuman, M.S" (Outside your organization), and "Dr S Srinivasulu Raju" (Guest).

At the bottom of the Zoom window, there is a taskbar with various application icons and a system clock showing 11:18 AM on 7/29/2021.



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Meeting in "General"

46:17

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### Linear Regression

- With our training set defined - how do we use it?
  - Take training set
  - Pass into a learning algorithm
  - Algorithm outputs a function (denoted  $h$ )
  - This function takes an input (e.g. size of new house)
    - Try to output the estimated value of  $Y$
- How do we represent hypothesis  $h$ ?
  - Going to present  $h$  as  $h_0(x) = \theta_0 + \theta_1 x$
  - Means  $Y$  is a linear function of  $x$
  - $\theta_0, \theta_1$  are parameters
- A linear regression with one variable is also called **univariate linear regression**
- So in summary
  - A hypothesis takes in some variable
  - Uses parameters determined by a learning system
  - Outputs a prediction based on that input

Size of House  $\rightarrow h \rightarrow$  Estimated Price (Assumed value,  $h_0$ )

Training Set  $\rightarrow$  Learning Algorithm

Participants

Invite someone or dial a number

Share Invite

Deepika J (Guest)

Diwakara Vasuman.M.S (Guest)

Dr. S Srinivasulu Raju (Guest)

Dr. Smitha (Guest)

Dr. M. Ananthi (Guest)

Dr. Nijaguna G S (Guest)

Florance (Guest)

Gousia Tahniyath (Guest)

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**Alin computerVision**

**Speaker:** Dr. U. SrinivasaluReddy

**Date:** 29-7-21 AN

As computer vision evolved, programming algorithms were created to solve individual challenges. Machines became better at doing the job of vision recognition with repetition. Over the years, there has been a huge improvement of deep learning techniques and technology. We now have the ability to program supercomputers to train themselves, self-improve over time and provide capabilities to business season line applications. Computer vision is not just about converting a picture into pixels and then trying to make sense of what is in the picture through those pixels. We have to understand the bigger picture of how to extract information from those pixels and interpret what they represent. Convolutional Neural Network is a class of deep feed forward neural networks that is largely inspired by the biological system, where the connectivity pattern between neurons depicts where each individual cortical neuron responds to stimuli only in the restricted region of the visual field known as receptive field, i.e., restrictive



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Sub area of the input. The cortical neurons of different fields overlap in such a way that they collectively represent the entire image.

### 6G Communication Technology: Vision

- 6G technology will use Terahertz Radiation (THz), with electromagnetic waves of wavelength 1 - 0.1mm, which is also known as submillimeter radiation.
- THz is characterized by
  - High bandwidth
  - High data rate
  - High capacity
  - High throughput
- Transition from smart to intelligent
  - In the 6G era, all smart devices will be converted to intelligent devices.
- High quality of experience (QoE) via Holographic communications, augmented reality and virtual reality.





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**Probable Research opportunities in Machine Learning**

**Speaker:** Dr. UjwalaBarauh

**Date:**30-7-21FN

Machine learning, especially its subfield of Deep Learning, had many amazing advances in the recent years, and important research papers may lead to breakthroughs in technology that get used by billions of people. We present a residual learning framework to ease the training of deep neural networks that are substantially deeper than those used previously. We explicitly reformulate the layers as learning residual functions with reference to the layer inputs, instead of learning unreferenced functions. We provide comprehensive empirical evidence showing that these residual networks are easier to optimize, and can gain accuracy from considerably increased depth. Training Deep Neural Networks is complicated by the fact that the distribution of each layer's inputs changes during training, as the parameters of the previous layers change. We refer to this phenomenon as internal covariate shift, and address the problem by normalizing layer inputs. Applied to an image classification model, Batch Normalization achieves the same accuracy with 14 times fewer training steps, and beats the original model by a significant margin.



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**From Cloud to Edge Computing**

**Speaker:** Dr. AnandhiGiridharan

**Date:** 30-7-21 AN

Edge Computing can support companies with computing tasks that cannot be done in the cloud and offers clear advantages when dealing with low latency, connectivity, security, or privacy, and transmitted data volumes are an issue. Edge and distributed cloud architectures will increase the speed of data processing and reduce time lag. Edge computing, alone or in combination with Cloud Computing, will play a key role to enable technologies like autonomous vehicles, digital factories, smart cities, digital health, smart tracking and much more. It is already starting to reshape enterprise computing and it can play a vital role in IT architectures. All the industries that need to perform the computing tasks as close to where data is gathered as possible will benefit from Edge Computing. Edge Computing refers to the computations that take place at the 'outside Edge' of the internet, as opposed to Cloud Computing, where computation happens at a central location. Edge Computing typically executes close to the data source, for example on board or adjacent to a connected camera. A self-driving car is a perfect example of Edge Computing. In order for cars to drive down any road safely, it must observe the road in real-time and stop if a person walks in front of the car. In such a case, processing visual information and making a decision is done at the Edge, using Edge Computing.



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### **Outlier and Imbalanced Concepts in ML**

**Speaker:** Dr. ManjubalaBisi

**Date:** 31-7-21FN

Machine Learning algorithms tend to produce unsatisfactory classifiers when faced with imbalanced datasets. For any imbalanced data set, if the event to be predicted belongs to the minority class and the event rate is less than 5%, it is usually referred to as a rare event. The conventional model evaluation methods do not accurately measure model performance when faced with imbalanced data sets. Standard classifier algorithms like Decision Tree and Logistic Regression have a bias towards classes which have a number of instances. They tend to only predict the majority class data. The features of the minority class are treated as noise and are often ignored. Thus, there is a high probability of misclassification of the minority class as compared to the majority class. Evaluation of a classification algorithm performance is measured by the Confusion Matrix which contains information about the actual and the predicted class. However, while working in an imbalanced domain accuracy is not an appropriate measure to evaluate model performance. Dealing with imbalanced datasets entails strategies such as improving classification algorithms or balancing classes in the training data or data preprocessing before providing the data as input to the machine learning algorithm. The latter technique is preferred as it has wider application. The main objective of balancing classes is to either increase the frequency of the minority class or decrease the frequency of the majority class. This is done in order to obtain approximately the same number of instances for both the classes.





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### Random Under-Sampling

- Under sampling can be defined as removing some observations of the majority class
- This is done until the majority and minority class is balanced out
- Under sampling can be a good choice when you have a ton of data -think millions of rows
- But a drawback to under sampling is that we are removing information that may be valuable

Manjubala Bisi (NITW) (Guest) [Stop sharing your screen](#) [Stop sharing](#) [Help](#)

Dr. Manjubala Bisi (NITW) FDP on Advances In AI and ML 31/07/2021 23 / 41

+27 DV MM SS DB DN

Dr. Manjubala Bisi (NITW) ...

**Participants**

Invite so

**In this meet**

- DN Dr. Org
- AG App Out
- AK Ash Gue
- C CSE
- DV Diw Out
- DK Dr B
- DS Dr S



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**Health Care Using ML**

Speaker: **Dr. Pinkiroy**

**Date:** 31-7-21 FN

Machine learning, simply put, is a type of artificial intelligence when computers are programmed to learn information without human intervention. In machine learning, the development of the underlying algorithms relies on computational statistics. Computers are provided data and then the computers learn from that data. The data actually teaches the computer by revealing its complex patterns and underlying algorithms. The larger the sample of data the machine is provided, the more precise the machine's output becomes. Machine learning in healthcare is becoming more widely used and is helping patients and clinicians in many different ways. The most common healthcare use cases for machine learning are automating medical billing, clinical decision support and the development of clinical care guidelines. There are many notable examples of machine learning and healthcare concepts being applied in medicine in radiology, deep learning in healthcare identifies complex patterns automatically, and helps radiologists make intelligent decisions reviewing images such as conventional radiographs, CT, MRI, PET images and radiology reports. The performance of machine learning-based automatic detection and diagnosis systems has shown to be equivalent to that of an experienced radiologist. Google's machine learning applications in healthcare were trained to detect breast cancer and achieved 89 percent accuracy, on par or better than radiologists. These are just a few of examples of the many uses of machine learning in healthcare.

Meeting in "General"

04:09:20

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**Research Approach & Problem Formulation**

- Find Healthcare problems that are currently affecting the society.
- Problems, which when solved, patient care will improve drastically.
- Study the literature, by reading review papers from multiple sub-domains.
- Talk to healthcare professionals in your locality, and understand the need.
- Identify the problem types w.r.t these needs, by answering the following:
  - Is it a classification problem?
  - Is it a segmentation problem?
  - What type of data is to be analyzed? Numerical, Textual, Image, or Video?
- Formally represent the identified problem, in technical terms.

**Experimental Setup: Getting The Data**

- In order to build effective DL models, appropriate and adequate data acquisition is very important.
- Some very useful sources of healthcare related datasets are:

Participants in this meeting (23):

- K Kalaiselvi
- kairunnisa2019 (Guest)
- KAVITHA S (Outside your organization)
- KAVIYAPRIYA P (Guest)
- kkumar (Guest)
- Naveen Kumar B (Guest)
- Ratikanta Majhi
- reakha@theoxford.edu (Guest)
- Senthil Kumar (Guest)
- Srinvas45 (Guest)





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**Valedictory function**

The programme ended with valedictory function. The Organizing chair Dr. R CH A Naidu, HOD of CSE department TOCE, consolidating the 6days FDP program. DR.N. Kannan, Principal TOCE joined the valedictory function and gave his valuable speech. He appreciated the participants, the program organizer and coordinators. The forum was opened for the participants to deliver their feedback. Finally, the program ended with vote of thanks.





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**Advancements in Artificial Intelligence and Machine Learning - ISE**

Date:12-7-2021/17-7-2021

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**Department of Information Science & Engineering**

**PRESENTS**

**6 Days Faculty Development Program**  
**On**  
**"Advancements in Artificial Intelligence (AI) and**  
**Machine Learning (ML)"**  
**in association with**  
**CSI Chapter Bangalore**  
(E-Certificates will be Issued for the participants)

**12th - 17th July 2021**

**Registration Link - <https://forms.gle/CsyxxMRSy8TiVJSG6>**

**FDP Link - <https://rb.gy/i2q7za>**





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## Eminent Speakers

S.no	Dates	11 AM - 12:30 PM (FN)	2 PM to 3:30 PM (AN)
1	12-07-21	Inauguration Ceremony and Key note speaker session by <u>Prof. Dr. Ciro Rodriguez R.</u> Universidad Nacional Mayor de San Marcos UNMSM Lima Peru. South America.	Data Science <u>Prof. Dr. Vinay Kulkarni</u> Adjunct Faculty-IIT Bombay
2	13-07-21	Computer Vision <u>Prof. Dr. Mahesh Kumar H. Kolekar</u> -IIT-Patna	Genetic Algorithm <u>Prof. Dr. Jayak Ali</u> -Central University Karnataka (CUK)
3	14-07-21	NLP for beginners with the light on modern research avenues <u>Prof. Dr. Shashidhar G Koolagudi</u> - NIT Surathkal	Data Science or Deep learning <u>Prof. Dr. P Radha Krishna</u> - NIT Warrangal
4	15-07-21	Human computer interaction using machine Learning <u>Prof. Dr. Damodar Reddy Edla</u> -NIT Goa	Hands-on Session on Brain Computer <u>Prof. Dr. Damodar Reddy Edla</u> - NIT Goa
5	16-07-21	Hands-on Programming with Python <u>Mr. Chetan Adhikari</u> - TCS	Learning Analytics <u>Prof. Dr. Arvind Kewelakar</u> - DBATU University - Lonere
6	17-07-21	Data Analysis for COVID-19 Pandemic <u>Prof. Dr. Parikshit N. Mahalle</u> - Vishwakarma Institute of information technology, Pune.	Valedictory Session



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**FDP on Recent Trends in Photonics**

## About Institution

The Oxford College of Engineering (TOCE) is one of the most prestigious institutions run by the children's Education Society. TOCE aims at carving competent students with extraordinary to face challenges of the continuous changing world. TOCE provides quality training in professional education in values in Engineering, Management and Computer application streams. The College has 11 Research Centre's approved by VTU to carryout Ph.D. and M.Sc. Engineering Programmes. The institution is well known for its Consultancy & Research and Development activities. Various Departments have financial assistance from reputed state (VGST/KSCST/VTU) & Central (DRDO-NRB, DAE-BRNS, AICTE, ICMR, NIF, DBT/BIRAC) funding agencies to cater the need of young researchers and students in engineering and management.

## About FDP

Faculty Development program focuses on the recent and advanced trends in Artificial Intelligence in industry, research and development. FDP aims that all the Faculties, research students ( M.TECH and PHD ) should take the benefits of the advance trends in AI. The FDP's eminent speakers are from IITs, NITs, Central University of Karnataka (CUK) and from reputed institutes and Industries. The following topics covered in FDP are Data Science, NLP, Computer Vision, Use of AI for Cybersecurity Applications, Tensorflow, Genetic Algorithm, Deep Learning, Machine Learning application in remote sensing, Case study in AI and ML, Hands-on programming with Python.

## CHIEF PATRONS

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Chairman,  
The Oxford Group of  
Institutions, Bengaluru

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Educational Institution

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Dr. K M Ravi Kumar  
Director, The Oxford College of  
Engineering

Dr. Kannan N  
Principal, TOCE

## For Further Details Contact Us:

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Mob.#: +91-9028112394  
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Prof. Sandhya Rani: +91-9900021178

## ORGANIZING CHAIR

Dr. R.Kanagavalli  
Professor and HOD -ISE Department

## CONVENOR/PROGRAM COORDINATOR

Dr. Vanajaroselin E. Chirchi  
Professor, ISE Department

## FACULTY COORDINATORS

Prof. Vidhya Venkatesh  
Prof. Sandhya Rani



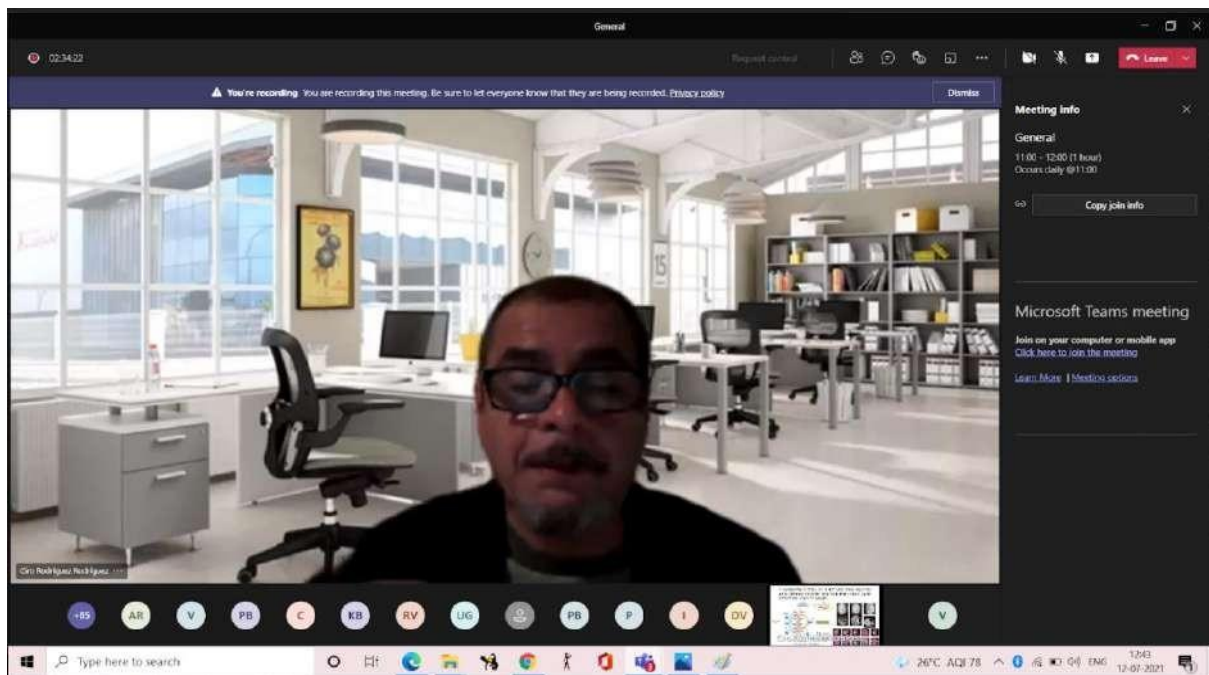


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**Repoton FDP on “Advancements in AI and ML”**

A one-week Faculty Development Program (FDP) on “Advancements in AI and ML” was organized at the Department of Information Science Engineering, The Oxford College of Engineering Bangalore from 12<sup>th</sup> July 2021 to 17<sup>th</sup> July 2021 in association with CSI Chapter Bengaluru.





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General

02:28:41

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## AN ACCURATE GENERATION OF IMAGE CAPTIONS FOR BLIND PEOPLE USING ECANN

The progress on image understanding and **Automatic Image Captioning AIC** has attracted researchers to use AI to assist the blind people. AIC integrating **computer vision** and **NLP** to generate **automatic language descriptions** in relation to the image observed.

Freiburg Groceries Dataset and Grocery Store Dataset

Dr. Rodriguez Rodriguez

Participants: CS, RV, UG, CS, PB, P, DV, V

Type here to search

26°C Light rain 12:38 12-07-2021

General

02:46:37

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### Participants

Invite someone or dial a number

Share invite

Presenters (3)

- Vidya Siddhan Organizer
- Dr. Rodriguez Rodriguez Outside your organization
- Dr. Varajirodlin

Attendees (10)

- B ANANDAPRIYA Guest
- "Pooja Sona (Guest)" Guest
- A Aarti (Guest) Guest
- A R Rohman (Guest) Guest
- ABHJAT KUMAR SHUKLA Guest
- Ashwarya S (Guest) Guest
- Anuscha Venkatar Outside your organization
- ARUNA REDDY #1

Dr. Rodriguez Rodriguez

Dr. Varajirodlin

Participants: DC, KK, AR, V, PB, C, KB, RV, PB, P, I, V

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26°C Mostly cloudy 12:56 12-07-2021





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The top screenshot shows a Zoom video conference in progress. The main window displays a man with a mustache, wearing a light blue shirt, speaking. He is in a room with bookshelves and a large stuffed animal. The Zoom interface includes a top bar with the title 'FDP - AI AND ML\_USE\_TOCE', a status bar with '26:34:06', and a toolbar with various icons. A 'Participants' list on the right shows several names, including 'vidhyasiddhan', 'Dr. Varagavalli', 'Mahesh Kolkar (Guest)', 'SandyRani V', 'Vinay Kumar Singh', 'Prof.Rathod V U', 'Mukesh Prasad (Guest)', 'MVENGATESHWARAN (Guest)', 'Aarti (Guest)', 'A R Rahman (Guest)', 'Akshaya S (Guest)', 'ASHA', and 'AUG Natchika'. The bottom screenshot shows a split-screen view of two participants. On the left is a man with a mustache, wearing a dark blue shirt, sitting in a room with a large window and a desk. On the right is a woman with dark hair, wearing a green and blue top. The Zoom interface is similar to the top screenshot, with a title bar 'FDP - AI AND ML\_USE\_TOCE', a status bar '02:27:12', and a participant list on the right.





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The screenshot shows a Zoom meeting interface. The main window displays a PowerPoint presentation titled "Deep Learning Techniques For Automated Screening of COVID-19" by Dr. Maheshkumar H. Kolekar, Associate Professor at the Electrical Engineering Dept, IIT Patna. The presentation is in the "Review" view, showing a slide with the title and author information. The right sidebar shows a list of participants, including Vidyutashishan, Dr. Venkatesh, BEHCO, Mahesh Kolekar (Guest), Sandyaani V, and others. The bottom status bar shows the time as 24:52:54 and the meeting ID as 101-41-AND-MB-ISE-TOOL.

The screenshot shows a Zoom meeting interface. The main window displays a web browser showing the GitHub repository for "chattertrainer Python hands on session files". The repository contains a list of session files (session1 to session6) and a README file. The right sidebar shows a list of participants, including Luvnagpal, Dhruv Fattima (Guest), Dr. Gayatri HN, Dr. S C LINGAGREDDY, Dr. Gajendra Babu S., Dr. Nirmala S (Guest), Dr. A. Swaminathan (Guest), Dr. Balaji Sankaralingam, and others. The bottom status bar shows the time as 45:12 and the meeting ID as 101-41-AND-MB-ISE-TOOL.







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**Department of Electronics and Communication Engineering**  
Organizes  
**"FDP on Recent Trends in Photonics"**

<https://bit.ly/2SaonQS>

**14th - 19th June 2021**  
 E-Certificate will be provided

<https://bit.ly/3in49hc>

Date	Forenoon 11:00am - 12:30pm	Speakers	Afternoon 2:00pm - 3:30pm
14/06/2021	<b>Dr. Manpreet Singh Manna</b> Former Director AICTE, Prof. IJSET Longwell Topic: Roadmap to become an Entrepreneur for Engineers <i>Key note speaker</i>	<b>Dr. T. Srinivas</b> Faculty, Indian Institute of Science, Bangalore Topic: Photonic Integrated Circuit	
15/06/2021	<b>Dr. Gagan Kumar</b> Indian Institute of Technology Guwahati, Assam Topic: Terahertz Plasmonics Guided Wave Devices	<b>Dr. Mandeep Singh</b> NIT Surathkal, Karnataka, & Visiting Scientist at IISc. Topic: Advances in Nano photonics	
16/06/2021	<b>Dr. S K Sinha</b> Retired Professor, IISc Founder and Chairman at Lab to Market in IISc Topic: Health Monitoring of Indian Railway system using Optical Sensor	<b>Dr. Inderpreet Kaur</b> Adjunct Faculty, OREC Ludhiana Topic: Role of Photonics in Energy	



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Date	Speaker	Topic
17/06/2021	<b>Dr. P C Srikanth</b> Professor & Former Head, Dept of ECE, Maddur College of Engineering, Hassan	Topic: Quantum concepts and applications
17/06/2021	<b>Dr. S.B. Bhanu Prashanth</b> Professor in Medical Electronics B.M.S. College of Engineering Bangalore	Topic: Optical based Biosensor
18/06/2021	<b>Dr. Sandip Kumar Roy</b> I.P. Jain School of Global Management, Dubai	Topic: Photonics for Artificial Intelligence
18/06/2021	<b>Dr. Maneesh C. Srivastava</b> HOD Mechanical Engineering Department Amity University, Lucknow campus	Topic: Photonics in Health Monitoring Concepts
19/06/2021	<b>Dr. Anupma Thakur</b> DST-INSPIRE Senior Research Fellow, CSIR-CBIO, Chandigarh	Topic: Green Hydrogen Production from Renewable Energy using Nano-photonics
19/06/2021	<b>Dr. Gagandeep</b> Associate Professor-UTM, New Delhi; Corporate Trainer, Founder- Weaving Dreams	Topic: Significance of Spirituality in the Youth of Today

Chief Patron	Patrons	Convener	Faculty Coordinators
<b>Shri. S. N. V. L. Narasimha Raju</b> President, The Oxford Educational Institutions	<b>Dr. Amarnath K.</b> Director, The Oxford Educational Institutions	<b>Dr. Manju Devi</b> Professor & HOD, Department of ECE	<b>Dr. Chrispin Ijii</b> Associate Professor Department of ECE
	<b>Dr. N. Malmurugan</b> Director, The Oxford Group of Institutions	<b>Co-convener</b> <b>Dr. Praetha Sharan</b> Professor & IEEE Branch Councilor, The Oxford College of Engineering	<b>Dr. Bhargav Rama Gowd</b> Associate Professor Department of ECE
	<b>Dr. K. M. Ravi Kumar</b> Director, The Oxford College of Engineering		







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**Report On**

**One Week Faculty Development Program on**

**Recent Trends in Photonics June 14-19, 2021**

**at**

**Department of Electronics and Communication Engineering**

A one-week Faculty Development Program (FDP) on Recent Trends in Photonics was organized at the Department of Electronics & Communication Engineering, The Oxford College of Engineering Bangalore from June-14, 2021 to June- 19, 2021 in association with IEEE Photonics Society, Bangalore Chapter as the academic partner. The main objective of this program is to make the participants aware of the recent trends in photonics so that they can update their knowledge in this area and explore for further research. It was also expected that as the participants are all faculties of different educational institutions, the knowledge gained will be shared and further passed on to the students. The FDP was attended by 168 participants from faculty members & Research Scholars of ECE, EEE, CSE, ISE, ME, Biomedical engineering, Medical Electronics, Basic Science department of different colleges.

Ms. Mittu George hosted the inauguration programme began with a prayer song by Ms. Srividya. Dr. Manju Devi, Head of the Department of Electronics and Communication Engineering welcomed all the respected dignitaries and participants. Hon. Principal Dr. NK Annan shared his views with the faculty participants that if faculty want to develop themselves and their students, then attending such faculty development programmes would enhance their skills of teaching concepts practically. Sir, further shared that it helps to improve the performance of faculty in teaching and highlighted the importance and objectives of organizing faculty development programmes. Dr. Preeta Sharan, Professor, ECE dept and Co-Convener, emphasized the benefits of such kind of resourceful and explained the importance of photonics in engineering. The introduction to the Keynote speaker was given by FDP Coordinator Dr. A. Chrispin Jiji, Associate Professor, ECE dept.



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### Brochure of Six Days Faculty Development Program on Recent trends in Photonics

17/06/2021	<b>Dr. P. C. Velamuri</b> Professor & Head, School of Engineering, Anna University, Chennai Topic: Quantum computing and applications	<b>Dr. S. H. Shyam Sundar</b> Professor & Head, School of Engineering, Anna University, Chennai Topic: Optical based Biosensors
18/06/2021	<b>Dr. Sandeep Kumar Ravi</b> IIT Madras School of Mechanical Engineering, India Topic: Photonics for Artificial Intelligence	<b>Dr. Manish Chandra</b> IIT Madras School of Engineering, India Topic: Photonics in Health Monitoring Concepts
19/06/2021	<b>Dr. Anupma Dhar</b> IIT Madras School of Engineering, India Topic: Green Hydrogen Production from Renewable Energy using Solar-thermophotovoltaics	<b>Dr. Gopikrishna</b> IIT Madras School of Engineering, India Topic: Smart Feature of Spectroscopy in the Field of Today
<b>CHIEF PATRON</b> <b>Dr. S. N. S. Narasimha Raju</b> President, The Oxford Educational Institutions		
<b>PATRONS</b> <b>Dr. Anand K.</b> Vice-Chancellor, The Oxford Educational Institutions <b>Dr. N. Mahalingam</b> Director, The Oxford College of Technology <b>Dr. N. M. Raju Kumar</b> Director, The Oxford College of Engineering		
<b>CONVENER</b> <b>Dr. Manoj Datt</b> Professor & HOD, Department of ECE <b>CO-CONVENER</b> <b>Dr. Divyashree Sharan</b> Professor & HOD, School of Computer, The Oxford College of Engineering		
<b>FACULTY COORDINATORS</b> <b>Dr. Chiranjit Das</b> Associate Professor, Department of ECE <b>Dr. Bhargava Rama Goud</b> Associate Professor, Department of ECE		
<b>COMPANY PARTNERS</b> 		

<b>IEEE</b> <b>THE OXFORD COLLEGE OF ENGINEERING</b> BOMMANAHALLI, HOSUR ROAD, BANGALORE-560068 Approved by AICTE, New Delhi & Affiliated to VTU Belagavi. Department of Electronics and Communication Engineering <b>"FDP on Recent Trends in Photonics"</b> <a href="https://bit.ly/255on05">https://bit.ly/255on05</a> 14th - 19th June 2021 <a href="https://bit.ly/2in49hc">https://bit.ly/2in49hc</a> E-Confess will be provided		
Date	Forenoon 11:00 am - 12:30 pm	Afternoon 2:00 pm - 3:30 pm
14/06/2021	<b>Dr. Manoj Singh Meena</b> Senior Member IEEE, India (IEEE Fellow) Topic: Emerging 2D Semiconductors in Nanotechnology for Engineers Key Note Speaker	<b>Dr. T. Arumugam</b> Faculty, Indian Institute of Space, Bangalore Topic: Photonics based Sensor
15/06/2021	<b>Dr. Anupama Dhar</b> IIT Madras School of Engineering, India Topic: Photonics in Health Monitoring Concepts	<b>Dr. Manish Chandra</b> IIT Madras School of Engineering, India Topic: Advances in Micro-photonics
16/06/2021	<b>Dr. S. K. Mishra</b> Member IEEE, India (IEEE Fellow) Topic: Health Monitoring of Indian Railway Network using Optical Sensor	<b>Dr. Subhasree Kaur</b> Assistant Faculty, Anna University Topic: Role of Photonics in Energy





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**Key note address by Dr. Manpreet Singh Manna**

On Day1 the keynote address was delivered by Dr. ManpreetSingh Manna, Former Director AICTE, Prof. SLIET Longowal. The introduction to the Keynote speaker was given by FDP Coordinator Dr. A Chrispin Jiji, Associate Professor, ECE dept. In his talk he spoke on theRoad map for Engineers to become Entrepreneur.





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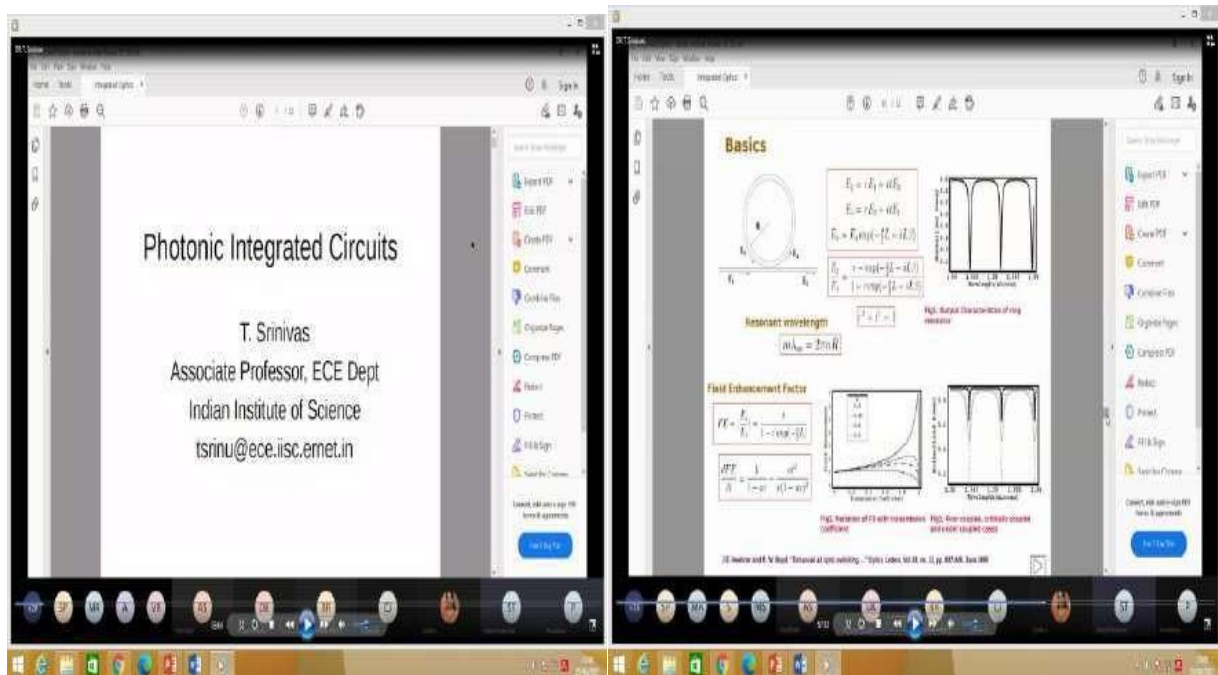
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**Technical session by Dr.T. Srinivas**

The next technical session was conducted by Dr. T Srinivas, Faculty, IISc, Bangalore. He spoke on Photonic Integrated Circuits and the participants learnt about the working and use of these optical circuits. The introduction to the Keynote speaker was given by FDP Coordinator Dr. A Chrispin Jiji, Associate Professor, ECE dept.







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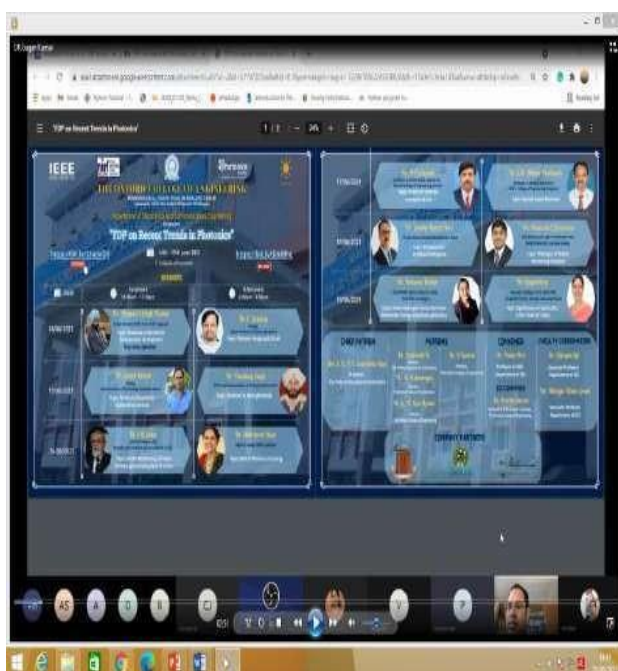
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**Technical session by Dr. Gagan Kumar**

On Day2 Session1 was conducted by Dr. Gagan Kumar, Faculty, IIT Guwahati, Assam, Hespoke on the Terahertz Plasmonics Guided Wave Devices. The participants learnt about the different research work carried out in this field and the different areas yet to be explored in their domain using this technology. The introduction to the Key note speaker was given by FDP Coordinator Dr. A Chrispin Jiji, Associate Professor, ECE dept.





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**Technical session by Dr. Mandeep Singh**

Session 2 was conducted by Dr. Mandeep Singh, NIT Surathkal Karnataka & Visiting Scientist at IISc, about Advances in Nanophotonics. In this session participants were learned about COMSOL software. The introduction to the Keynotes speaker was given by FDP Coordinator Dr. R. Bhargava Rama Gowd, Associate Professor, ECE Dept.







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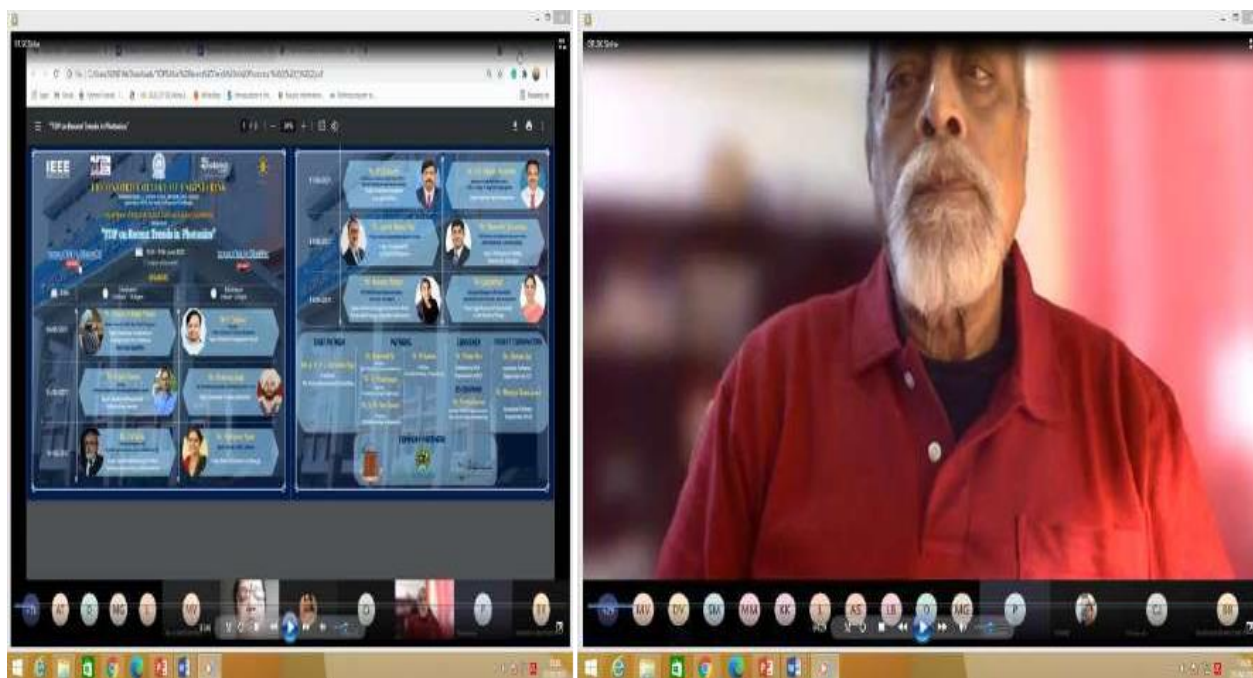
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**Technical session by Dr. S. K. Sinha**

On Day 3 Session 1 was conducted by Dr. S K Sinha, Retired Professor IISC, Founder and Chairman at Lab to Market in IISC. He spoke about Health Monitoring of Indian Railway system using Optical Sensor and also discusses the importance of Photonics in Railway System. The introduction to the Keynote speaker was given by FDP Co Convener Dr. Preeta Sharan, Professor, ECE dept.





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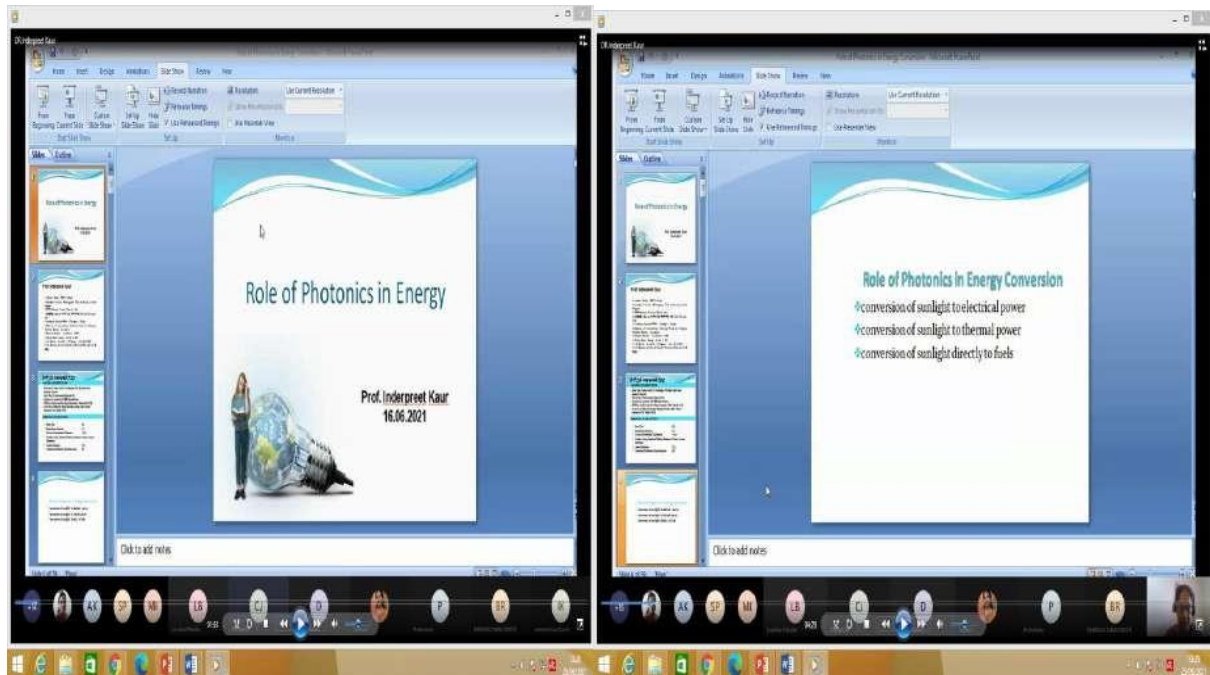
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**Technical session by Dr. InderpreetKaur**

Session 2 was conducted by Dr. Inderpreet Kaur, Adjunct Faculty, GNEC Ludhiana, Topic: Role of Photonics in Energy. In this session participants have learned about various energy resources in Photonics. The introduction to the Key note speaker was given by FDP Coordinator Dr. A Chrispin Jiji, AssociateProfessor, ECE dept.





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**Technical session by Dr.P.C. Srikanth**

On Day 4 Session 1 was conducted by **Dr. P C Srikanth**, Professor & Former Head, Dept of ECE, Malnad College of Engineering, Hassan. He spoke about Quantum concepts and applications. In this session participants have learned about the new emerging technique called quantum concepts. The introduction to the Key note speaker was given by FDP Coordinator Dr.R. BhargavaRama Gowd, Associate Professor, ECE dept.







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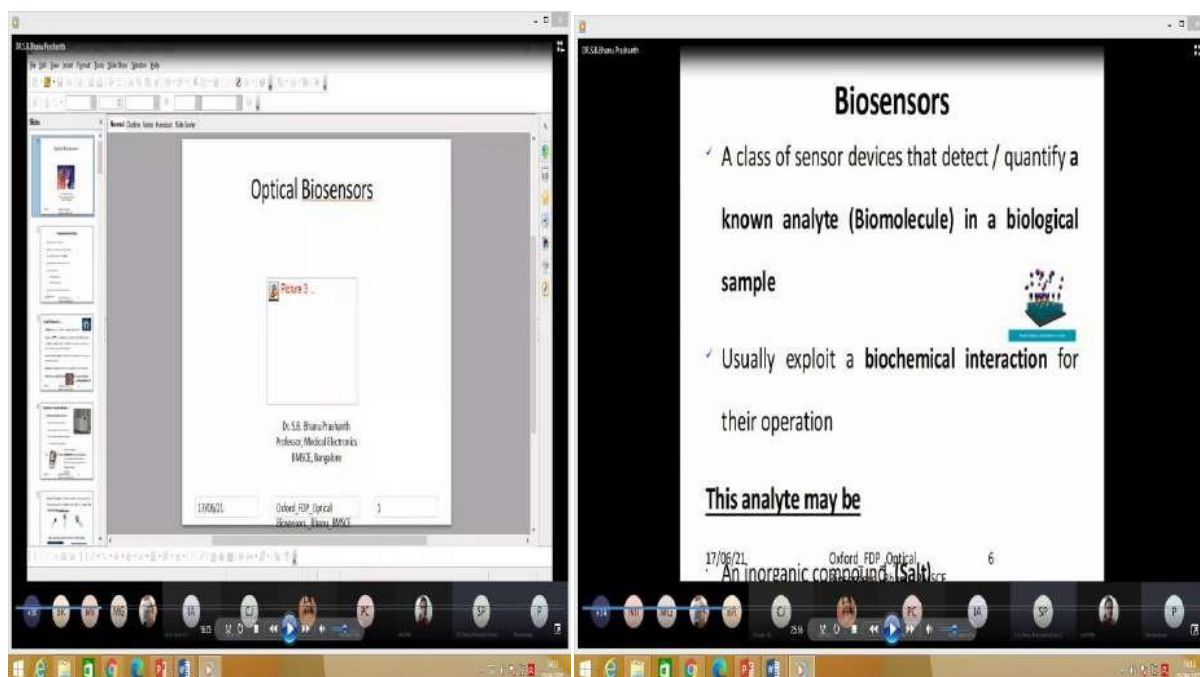
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**Technical session by Dr.S.B. Bhanu Prashanth**

Session 2 was conducted by **Dr.S.B. Bhanu Prashanth**, Professor in Medical Electronics B.M.S. College of Engineering Bangalore. He spoke about Optical based Biosensor. In this session participants have learned about the basis of various Bio sensors. The introduction to the Key note speaker was given by FDP CoConvener Dr. Preeta Sharan, Professor, ECE dept.





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**Technical session by Dr. Sandip Kumar Roy**

On Day5 Session1 was conducted by **Dr. SandipKumarRoy**, Professor, SPJain School of Global Management, Dubai. He spoke about Photonics for Artificial Intelligence. In this session participants have learned about how artificial intelligence related Photonics.

The image displays two side-by-side screenshots from a Zoom meeting. The left screenshot shows a presentation slide titled "Today's Topic: Photonics for Artificial Intelligence" with a date of "18th June 2021, 11 am - 12:30 pm" and the speaker's name "Dr. Sandip Kumar Roy" from "SP Jain School of Global Management". The right screenshot shows a slide titled "What is Machine Learning (ML)?" with a diagram of the "DECISION EXECUTION PROCESS" and a feedback loop involving "Learning Agents" and "Feedback".



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**Technical session by Dr. Maneesh C Srivastava**

Session 2 was conducted by **Dr. Maneesh C Srivastava**, HOD Mechanical Engineering, Amity University Lucknow Campus, India. He spoke about Photonics in Health Monitoring Concepts. In this session participants have learned about the IOT based devices. The introduction to the Key note speaker was given by FDP Coordinator Dr.R. BhargavaRamaGowd, Associate Professor, ECE dept.







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### Technical session by AnupmaThakur

On Day 6 Session 1 was conducted by **Anupma Thakur**, DST-INSPIRE Senior Research Fellow, CSIR-CSIO, Chandigarh. In this session participants were taught about Green Hydrogen Production from Renewable Energy using Nano-photonics. The introduction to the Keynote speaker was given by FDP Coordinator Dr. A Chrispin Jiji, Associate Professor, ECE dept

**ENERGY TRANSITION>THE BIGGER PICTURE**

Share of renewables in total final energy consumption under the Reference Case and REmap (left), and projected renewable power capacity installed in 2050 under REmap (right)

Notes:  
CSP = concentrated solar power;  
GW = gigawatt;  
PV = photovoltaic;  
TTEC = total final energy consumption.

Source: IRENA (2020).

Renewables could provide a large share of the world's energy, with greater reliance on electricity and significant growth in installed power capacity by 2050

Source: IRENA (2020). <https://www.irena.org/en/energy-transition>



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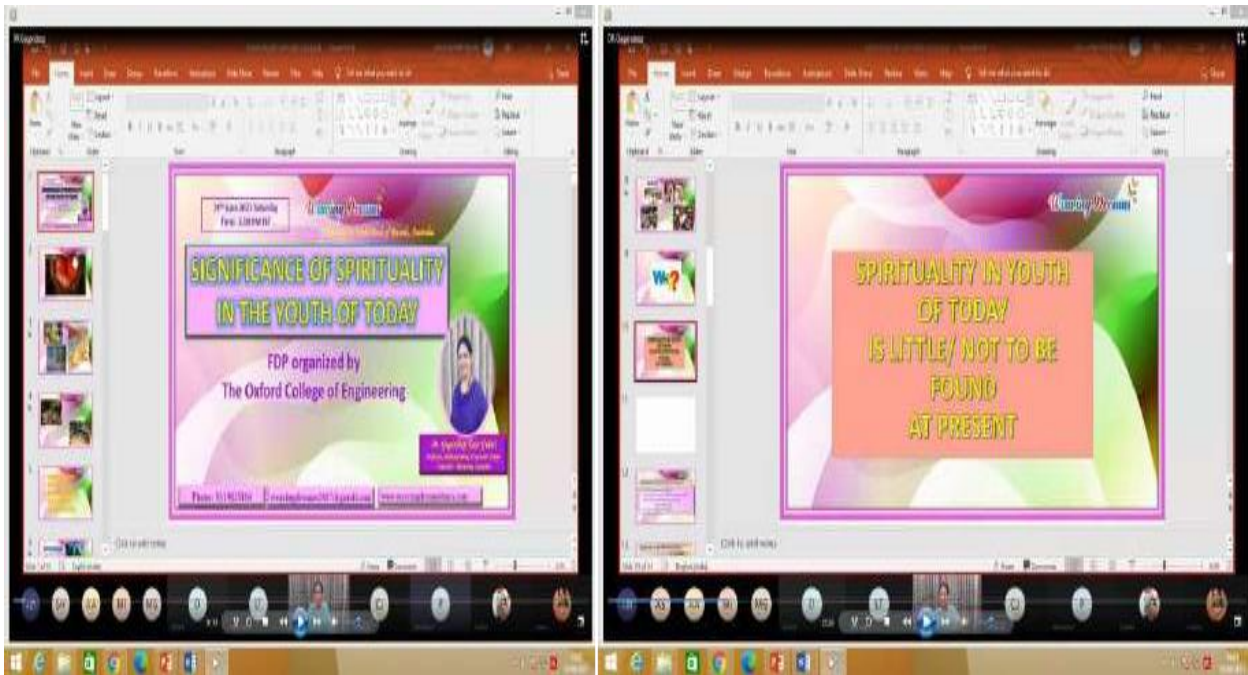
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**Technical session by Dr. Gagandeep**

Session2 was conducted by **Dr. Gagandeep**, Associate Professor-IITM, New Delhi; Corporate Trainer, Founder-Weaving Dreams. She spoke about the Significance of Spirituality in the Youth of Today. The introduction to the Keynote speaker was given by FDP CoConvener Dr. Preeta Sharan, Professor, ECE dept.





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The FDP was concluded by the valedictory function conducted on Day 6 afternoon 3.00pm. The session started with the welcome speech of Dr. ManjuDevi, HOD, ECE Dept. She gave a warm welcome to the gatherings and to the dignitaries. The overview of the FDP was delivered by Dr. Preeta Sharan, Co-Convenor ECE Dept. The Principal Dr. N Kannan appreciated the effort of the organizing team in managing the FDP so well. Few Speakers and participants shared their wonderful experience during the FDP. The valedictory function ended by the Vote of Thanks by Mrs. LayaTojo, Assistant Professor, ECE Dept.

**Outcome:** All the sessions were very much informative. The discussed areas are of great benefit for the participants as the topics match with the current working domain. Participants were enlightened with the most widely used advance technologies in this domain. On the whole the FDP received a lot of positive feedback from participants and it paved the way for participants to implement their Research Ideas in Recent Trends in Photonics.





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**FDP on Recent Trends in Electrical Engineering**

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The Oxford College of Engineering

**Convener**

**Dr. Bharath V. S., HOD / EEE**

**Faculty Coordinator**

Prof. Jayakumar N, Associate Prof, EEE  
Contact Details: 8050837275,  
Email Id: webinaretoce@gmail.com

**Organizing Committee**

- Dr. B Devi Vighneshwari, Associate Prof
- Prof. Sandhya Raj, Associate Prof
- Prof. Nisha C Rani, Associate Prof
- Prof. Raichel Ruby, Associate Prof
- Prof. Sumitha T L, Assistant Prof
- Prof. Someswari T, Assistant Prof
- Prof. Resna S R, Assistant Prof
- Prof. Anoop H K, Assistant Prof
- Prof. Prakruthi P, Assistant Prof
- Prof. Poornima M Assistant Prof
- Prof. Manjushree J, Assistant Prof

**Recent Trends in Electrical Engineering**

**REGISTRATION DETAILS**

Click the Link for Registration

<https://forms.gle/LqrNM5y7i4nx85NA6>

Join Us in the Whatsapp  
Group for Further  
Communications

<https://chat.whatsapp.com/Cz4Z4tkY3TJAs1RyKwJPTU>



**Meeting Link Details**



Click Here to Join Us for the FDP:

<https://bit.ly/3yuraDX>

- Free Registration
- E - Certificate for all the Participants
- Faculty/ PG Students / Research Scholars / Industry Persons

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The Oxford College of Engineering

One Week Online

Faculty Development Programme on



**Recent Trends in Electrical Engineering**

12th July 2021 - 17th July 2021



Organized By  
DEPARTMENT OF  
ELECTRICAL & ELECTRONICS ENGINEERING  
In Association with ISTE Students Chapter



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### About The Institution

The Oxford College of Engineering is one of the most prestigious institutions in Bengaluru that provides quality teaching and training in professional courses in various streams of Engineering, post graduate programs in Technology (M.Tech), Computer Application (MCA) and in Business Administration (MBA) and Research (Ph.D). The college campus is set in a sprawling 6.25 acres of land, ideal for education in a serene environment with buildings over 65,000 sq.meters of built-up area spread over floors for academic purposes. The college is situated along Information Technology corridor in National Highway towards Electronics City (N.H. 7), 1.0 km from the silk board. The college has a dedicated and highly qualified team of faculty who offer Quality education to the students as per the academic scheme of VTU. The Oxford College of Engineering offers 10 Under Graduate programs including B Arch, 10 M.Tech programs, MBA, MCA & 12 Research Centre leading to Ph.D / M.Sc. in Engg. The college has excellent placement.

### About EEE Department

The Electrical and Electronics Engineering Department was established in the year 2001 with an intake of 60 students for the Undergraduate program (BE). At present the intake has been enhanced to 120 students, a Post Graduate program (M.Tech) in Power Electronics course was started in 2008 with an intake of 18 students. The VTU Research Centre of the department was started during 2014 and has seen good progress as many scholars have registered for Ph.D. The Electrical and Electronics Engineering Department was accredited by "NATIONAL BOARD OF ACCREDITATION (NBA)" for the first time in the year 2007 and the Accreditation was renewed in the year 2016. The Department of Electrical and Electronics Engineering got NBA Accreditation for the Third time for the duration of three years from 2018 to 2021. The Department is also accredited by NAAC.

### OBJECTIVES OF THE FDP

The proposed faculty development programme provides a proper platform to participate for discussion and presentation of the latest technologies and discoveries in the field of Electrical Engineering. This is a quality course providing forum for academicians and industrial professionals to exchange their knowledge and state of art of aforesaid areas. The course content will be taught by eminent experts in the field, having adequate teaching and industrial experience. This course will offer a unique opportunity to the researchers, academicians and students working in this area to acquire knowledge in current and relevant topics in Electrical Engineering. This FDP provides deeper insight and knowledge to the participants about the recent advances in Electrical Engineering field.

### OUTCOMES OF THE FDP

- The Participants will be able to start using the techniques for their research & teaching
- They can get in depth knowledge on recent advancement in industry and research

### Vision & Mission of EEE Department

#### Vision:

Equipping Electrical and Electronics Engineering professionals in the cutting edge technologies of Electrical Science to meet the needs of the ever-changing world.

#### Mission:

- M1: To learn and experiment most recent innovations in Electrical and Electronics Engineering related to industry.
- M2: To provide state of art facilities for the continuous improvement in teaching-learning process and research activities in multidisciplinary areas.
- M3: To emphasize ethics, leadership, entrepreneurship skilled Electrical and Electronics Engineers.

### Schedule of the One Week Online Faculty Development Programme

Day 1 [12-07-2021 - Monday]: Inauguration - 10:00 AM - 10:30 AM
Day 1 [12-07-2021 - Monday]: Session 1 - 11:00 AM - 12:30 PM Modern Distribution System by Dr. Venkata Kiran, Assistant Professor, VIT-AP
Day 1 [12-07-2021 - Monday]: Session 2 - 2:00 PM - 3:30 PM Trends in Electric Vehicle by Dr. Josephine R L, Assistant Professor, VIT-AP
Day 2 [13-07-2021 - Tuesday]: Session 3 - 11:00 AM - 12:30 PM Electrical Machines and Controllers in Wind Energy Systems by Dr. P. Raja, Associate Professor, VIT-AP
Day 2 [13-07-2021 - Tuesday]: Session 4 - 2:00 PM - 3:30 PM Recent Trends in VLSI Technologies, an Automotive Perspective by Mr. Suresh Babu Narayanan, Senior Project Manager, Robert Bosch Engineering and Business Solutions (RBS) Ltd, Bangalore.
Day 3 [14-07-2021 - Wednesday]: Session 5 - 11:00 AM - 12:30 PM EV & Its Effect on Smart Grid by Dr. Jithendranath J, Associate Professor, Global Academy, Bangalore.
Day 3 [14-07-2021 - Wednesday]: Session 6 - 2:00 PM - 3:30 PM Smart Meters in Smart Grid by Dr. S. Sridhar, Associate Professor, Department of EEE, MIT, Anna University of Technology, Bangalore.
Day 4 [15-07-2021 - Thursday]: Session 7 - 11:00 AM - 12:30 PM Introduction to Solar PV Systems by Dr. B. Pradeep Kumar, Assistant Professor, VIT-AP, Anna University of Technology & Science, Warangal.
Day 4 [15-07-2021 - Thursday]: Session 8 - 2:00 PM - 3:30 PM Grid Integration of Electric Vehicle by Dr. Jango Karuparasamy, Assistant Professor, Anna School of Engineering, Coimbatore.
Day 5 [16-07-2021 - Friday]: Session 9 - 11:00 AM - 12:30 PM MEMS Devices in Real World Applications by Dr. Basudeb Behra, Assistant Professor, Indian Institute of Technology, Guwahati.
Day 5 [16-07-2021 - Friday]: Session 10 - 2:00 PM - 3:30 PM Multi-Mode Single Stage PV Inverters: Operation & Derivation by Dr. Ashok Kumar, Assistant Professor, VIT-AP.
Day 6 [17-07-2021 - Saturday]: Session 11 - 11:00 AM - 12:30 PM Embedded System Challenges and Electrical Applications in Automotive by Mr. Shamin Duda T S, General Manager, Power Train & Controls, Robert Bosch Engineering & Business Solutions Ltd, Bangalore.
Day 6 [17-07-2021 - Saturday]: Session 12 - 2:00 PM - 3:30 PM Industrial Applications of Electrical Drives by Mr. Thangaraj Arumugam, Assistant Manager TVS Training and Service Limited, Chennai.
Day 6 [17-07-2021 - Saturday]: Valedictory Function - 03:45 PM - 04:00 PM



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**Academic year 2020 -21 (Odd sem)**

**Report on**

**One Week Online FDP on "Recent Trends in Electrical Engineering  
(12<sup>th</sup> to 17<sup>th</sup> July 2021)**

The Virtual Faculty Development Program was conducted from 12.07.2021 to 17.07.2021 (6 days) in an effective manner and was very successfully completed with the support and encouragement of our Management, Directors, Principal, Conveners and all the Heads of Departments, Co-ordinators. All the faculty members, students supported a lot to make this event successful which enhanced the knowledge as well as brought the results of teamwork. All the sessions were conducted in Microsoft Team App (online mode).

A one-week Faculty Development Program (FDP) on Recent Trends in Electrical Engineering was organized at the Department of Electrical and Electronics Engineering, The Oxford College of Engineering Bangalore from 12<sup>th</sup> July 2021 to 17<sup>th</sup> July 2021 in association with ISTE Students Chapter. The main objective of this program is to make the participants aware of the recent trends in Electrical Engineering so that they can update their knowledge in this area and explore for further research. The objective also included that the knowledge gained and shared would help the faculties to guide students to pursue their career and research works. The FDP was attended by 209 participants from faculty members & Research Scholars of EEE, ECE, ME, Basic Science department of different colleges from various Parts of India.





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### Brochure of the 6 days FDP in Recent Trends in Electrical Engineering

<p style="text-align: center;"><b>Chief Patron</b></p> <p>Sri S N V L Narasimha Raju Chairman, The Oxford Group of Institutions</p> <p style="text-align: center;"><b>Patrons</b></p> <p>Dr. N Kannan, Principal, The Oxford College of Engineering Dr. Amarnath K, Director, The Oxford Educational Institutions Dr. H. Malmurugan, Director, The Oxford Educational Institutions Dr. K. M. Ravikumar, Director, The Oxford College of Engineering</p> <p style="text-align: center;"><b>Honorary</b></p> <p>Dr. Bharath V. S., HOD / EEE</p> <p style="text-align: center;"><b>Faculty Coordinator</b></p> <p>Prof. Jayakumar N, Associate Prof, EEE Contact Details: 8050837275, Email id: webinareeteece@gmail.com</p> <p style="text-align: center;"><b>Organizing Committee</b></p> <ul style="list-style-type: none"> <li>• Dr. B Devi Vigneshwari, Associate Prof</li> <li>• Prof. Sandhya Rai, Associate Prof</li> <li>• Prof. Nisha C Rani, Associate Prof</li> <li>• Prof. Raichel Ruby, Associate Prof</li> <li>• Prof. Sumitha T L, Assistant Prof</li> <li>• Prof. Someswari, T, Assistant Prof</li> <li>• Prof. Resna S R, Assistant Prof</li> <li>• Prof. Anoop H K, Assistant Prof</li> <li>• Prof. Prakruthi P, Assistant Prof</li> <li>• Prof. Poornima M Assistant Prof</li> <li>• Prof. Manjushree J, Assistant Prof</li> </ul>	<p style="text-align: center;"><b>Recent Trends in Electrical Engineering</b></p> <hr/> <p style="text-align: center;"><b>REGISTRATION DETAILS</b></p> <p style="text-align: center;">Click the Link for Registration</p> <p style="text-align: center;"><a href="https://forms.gle/LqrNM5v7I4nx85NA6">https://forms.gle/LqrNM5v7I4nx85NA6</a></p> <p style="text-align: center;">Join Us in the Whatsapp Group for Further Communications</p> <p style="text-align: center;"><a href="https://chat.whatsapp.com/Cz4Z4tkY3TJAs1RvKwJPLU">https://chat.whatsapp.com/Cz4Z4tkY3TJAs1RvKwJPLU</a></p> <hr/> <p style="text-align: center;"><b>Meeting Link Details</b></p> <p style="text-align: center;">Click Here to Join Us for the FDP:</p> <p style="text-align: center;"><a href="https://bit.ly/3vuraDX">https://bit.ly/3vuraDX</a></p> <ul style="list-style-type: none"> <li>• Free Registration</li> <li>• E - Certificate for all the Participants</li> <li>• Faculty/ PG Students / Research Scholars / Industry Persons</li> </ul>	<p style="text-align: center;">(Chairman, Organized by)</p> <p style="text-align: center;">The Oxford College of Engineering One Week Online Faculty Development Programme on</p> <p style="text-align: center;"><b>Recent Trends in Electrical Engineering</b></p> <p style="text-align: center;"><b>12th July 2021 - 17th July 2021</b></p> <p style="text-align: center;">Organized By DEPARTMENT OF ELECTRICAL &amp; ELECTRONICS ENGINEERING In Association with ISTE Students Chapter</p> <div style="display: flex; justify-content: space-around;"> </div> <p style="text-align: center;"><b>VISION</b> With a vision to be a respected and sought after group of educational institutions, we are very much engaged in developing institutions that support of building learning professionals to become self-reliant.</p> <p style="text-align: center;"><b>Our mission is to develop competent students with good value systems to face challenges of the constantly changing world.</b></p> <p style="text-align: center;"><b>QUALITY POLICY</b> To impart the education with highest standard of educational knowledge and skills. To ensure that the students are well equipped to face the challenges of the constantly changing world.</p> <div style="text-align: center;"> </div> <p style="text-align: center;"><b>Call For Admissions: 080 - 6175 4600 / 602 / 601 / 602 / 602</b> <b>Website: <a href="http://www.theoxford.edu/engneering/index.htm">http://www.theoxford.edu/engneering/index.htm</a></b></p>
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<p style="text-align: center;"><b>About The Institution</b></p> <p>The Oxford College of Engineering is one of the most prestigious institutions in Bengaluru that provides quality teaching and training in professional courses in various streams of Engineering, post graduate programs in Technology (M Tech), Computer Application (MCA) and in Business Administration (MBA) and Research (Ph.D). The college campus is set in a sprawling 6.25 acres of land, ideal for education in a serene environment with buildings over 65,000 sq.meters of built-up area spread over floors for academic purposes. The college is situated along information Technology corridor in National Highway towards Electronics City (N.H. 7), 1.0 km from the silk board. The college has a dedicated and highly qualified team of faculty who offer Quality education to the students as per the academic scheme of VTU. 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This FDP provides deeper insight and knowledge to the participants about the recent advances in Electrical Engineering field.</p> <p style="text-align: center;"><b>OUTCOMES OF THE FDP</b></p> <ul style="list-style-type: none"> <li>• The Participants will be able to start using the techniques for their research &amp; teaching</li> <li>• They can get in depth knowledge on recent advancement in industry and research</li> </ul> <p style="text-align: center;"><b>Vision &amp; Mission of EEE Department</b></p> <p><b>Vision:</b> Equipping Electrical and Electronics Engineering professionals in the cutting edge technologies of Electrical Science to meet the needs of the ever-changing world.</p> <p><b>Mission:</b> M1: To learn and experiment most recent innovations in Electrical and Electronics Engineering related to industry. M2: To provide state of art facilities for the continuous improvement in teaching-learning process and research activities in multidisciplinary areas. M3: To emphasize ethics, leadership, entrepreneurship skilled Electrical and Electronics Engineers.</p>	<p style="text-align: center;"><b>Schedule of the One Week Online Faculty Development Programme</b></p> <p>Day 1 (12-07-2021 - Monday): Inauguration - 10:00 AM - 10:30 AM Day 1 (12-07-2021 - Monday): Session 1 - 11:00 AM - 12:30 PM Modern Distribution System by Dr. Venkata Kirthiga, Associate Professor</p> <p>Day 1 (12-07-2021 - Monday): Session 2 - 2:00 PM - 3:30 PM Trends in Electric Vehicle by Dr. Josephine R L, Assistant Professor, Department of EEE</p> <p>Day 2 (13-07-2021 - Tuesday): Session 3 - 11:00 AM - 12:30 PM Electrical Machines and Controllers in Wind Energy Systems by Dr. P. Raja, Assistant Professor, IIT, Bangalore</p> <p>Day 2 (13-07-2021 - Tuesday): Session 4 - 2:00 PM - 3:30 PM Recent Trends in VLSI Technologies: an Automotive Perspective by Mr. Sivaramasubramanian Narayanan, Senior Project Engineer, Global Launch Engineering, part of Infineon Technology (MPS) Ltd, Bangalore</p> <p>Day 3 (14-07-2021 - Wednesday): Session 5 - 11:00 AM - 12:30 PM EV &amp; its Effect on Smart Grid by Dr. Jithendranath J., Associate Professor, Global Launch Engineering</p> <p>Day 3 (14-07-2021 - Wednesday): Session 6 - 2:00 PM - 3:30 PM Smart Meters in Smart Grid by Dr. S. Sriharsh, Assistant Professor, Department of EEE, SRM Institute of Technology, Madurai</p> <p>Day 4 (15-07-2021 - Thursday): Session 7 - 11:00 AM - 12:30 PM Introduction to Solar PV Systems by Dr. B. Pradeep Kumar, Assistant Professor, Institute of Technology &amp; Science, Hyderabad</p> <p>Day 4 (15-07-2021 - Thursday): Session 8 - 2:00 PM - 3:30 PM Grid Integration of Electric Vehicle by Dr. Jango Karuppusamy, Assistant Professor, Anna School of Engineering, Chennai</p> <p>Day 5 (16-07-2021 - Friday): Session 9 - 11:00 AM - 12:30 PM MEMS Devices in Real World Applications by Dr. Sasudesh Behra, Assistant Professor, Indian Institute of Technology, Coimbatore</p> <p>Day 5 (16-07-2021 - Friday): Session 10 - 2:00 PM - 3:30 PM Multi Mode Single Stage PV Inverters: Operation &amp; Derivation by Dr. Ashok Kumar, Assistant Professor, IIT, Hyderabad</p> <p>Day 6 (17-07-2021 - Saturday): Session 11 - 11:00 AM - 12:30 PM Embedded System Challenges and Electrical Applications in Automotive by Mr. Shamin Dada T. S., Senior Manager, Power Train &amp; Controls, Global Launch Engineering, Bangalore</p> <p>Day 6 (17-07-2021 - Saturday): Session 12 - 2:00 PM - 3:30 PM Industrial Applications of Electrical Drives by Mr. Triangaris Arunagum, Assistant Professor, VIT, Vellore</p> <p>Day 6 (17-07-2021 - Saturday): Valedictory Function - 03:45 PM - 04:00 PM</p>
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**Inaugural Program of the Faculty Development Program**

The FDP started with a formal inaugural session compered by Dr DeviVighneshwari , Associate Professor, Dept of EEE, with an invocation song by Sahana G H (6<sup>th</sup>sem EE student). Dr. Bharath, Professor and Head of the Department of Electrical and Electronics Engineering extended a warm welcome to all the respected dignitaries and participants .He also shared his views about the Faculty Development Program and importance of attending such program for the enhancement of knowledge of the faculties and students Introduction to the Faculty Development Program was given by FDP coordinator, N Jayakumar, Associate Professor, Dept of EEE. He has highlighted the objectives of the FDP and briefed about the schedule of the program. He also gave a glimpse of the activities going on in EEE dept TOCE.





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**Inaugural Program of the FDP on “Recent Trends in Electrical Engineering”**

**Day1: 12<sup>th</sup> July 2021 Session1 (11:00 am-12.30 pm)**

The first talk was delivered by: Dr. VenkataKirtiga, AssociateProfessor, EEE dept NIT, Tiruchirapallion “Modern Distribution System”. Mrs. Nisha C Rani, AssociateProfessor, EEE dept has delivered the welcome speech and introduction aboutthe resource person. Theresource person has explained about modern power system and emphasised on microgridplanning, various factors considered in restructuring and conceptual design issues. At the endof the session, Mr. N Jayakumar, Associate Professor, Dept, of EEE, delivered vote of thanks to the resource persons and all the participants.



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The collage consists of four screenshots from a Zoom meeting. The top-left screenshot shows a presentation slide with the title 'The Oxford College of Engineering' and text in Kannada. The top-right screenshot shows a diagram comparing 'Central Generation' (multiple central plants) and 'Distributed Generation' (solar, fuel cell, wind, micro-turbine). The bottom-left screenshot shows a diagram titled 'EXAMPLE OF A MICRO-GRID' with labels for 'UPS Substation', 'Bulk supply connection (sub-transmission)', 'Other Feeders', and 'Feeder'. The bottom-right screenshot shows two video feeds of participants, a man and a woman, during the meeting.



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**Day 1 Seesion1**

**Day1:** 12<sup>th</sup> July 2021 Session2 (2:00 pm-3.30 pm)

The next technical session was handled by Dr Josephine, Assistant Professor, EEE dept NIT, Tiruchirapalli on Trends in Electric Vehicles. Dr Josephine has spoke about the BatteryManagementsystemandBatteryTechnologieswithPowerElectronics.Shehasdetailedab outEV battery charger's evolution and challenges. The welcome address and vote of thanks to there source person and all the participants was done by Mr. NJayakumar, Associate Professor, EEE department.

**TRENDS IN ELECTRIC VEHICLES**

Presented by  
Dr. Josephine. R. L.,  
Assistant Professor,  
Department of Electrical and Electronics Engineering,  
National Institute of Technology, Tiruchirappalli.

**Battery Management System (BMS) – Components**

- Mechanical Development**
  - Software design, mechanical design
  - Software PCB design
  - Power electronics design
  - Integration - ECU, BMS, etc.
- Software Development**
  - Hardware design development
  - SPICE, MATLAB/Simulink, etc.
  - Integration with other systems
  - Integration with other systems
- Testing**
  - Integration with other systems
  - Integration with other systems
  - Integration with other systems
  - Integration with other systems
- Hardware Development**
  - Integration with other systems
  - Integration with other systems
  - Integration with other systems
  - Integration with other systems





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A One Week Online Faculty Development Programme on Recent Trends in Electrical Engineering From 12th July 2021 - 17th July 2021

06:05:21

Report content

Single-phase 230 V, 50Hz to 48 V DC charger

E-Rikshaw @ NITT

TRANSAHAN

Josephine R Louis

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Mr. V.Kamal Kohare REEHOD DEV. EEE. TOCE JAVAIDMAR. EEE. TOCE Josephine R Louis

8:19 PM 7/12/2021



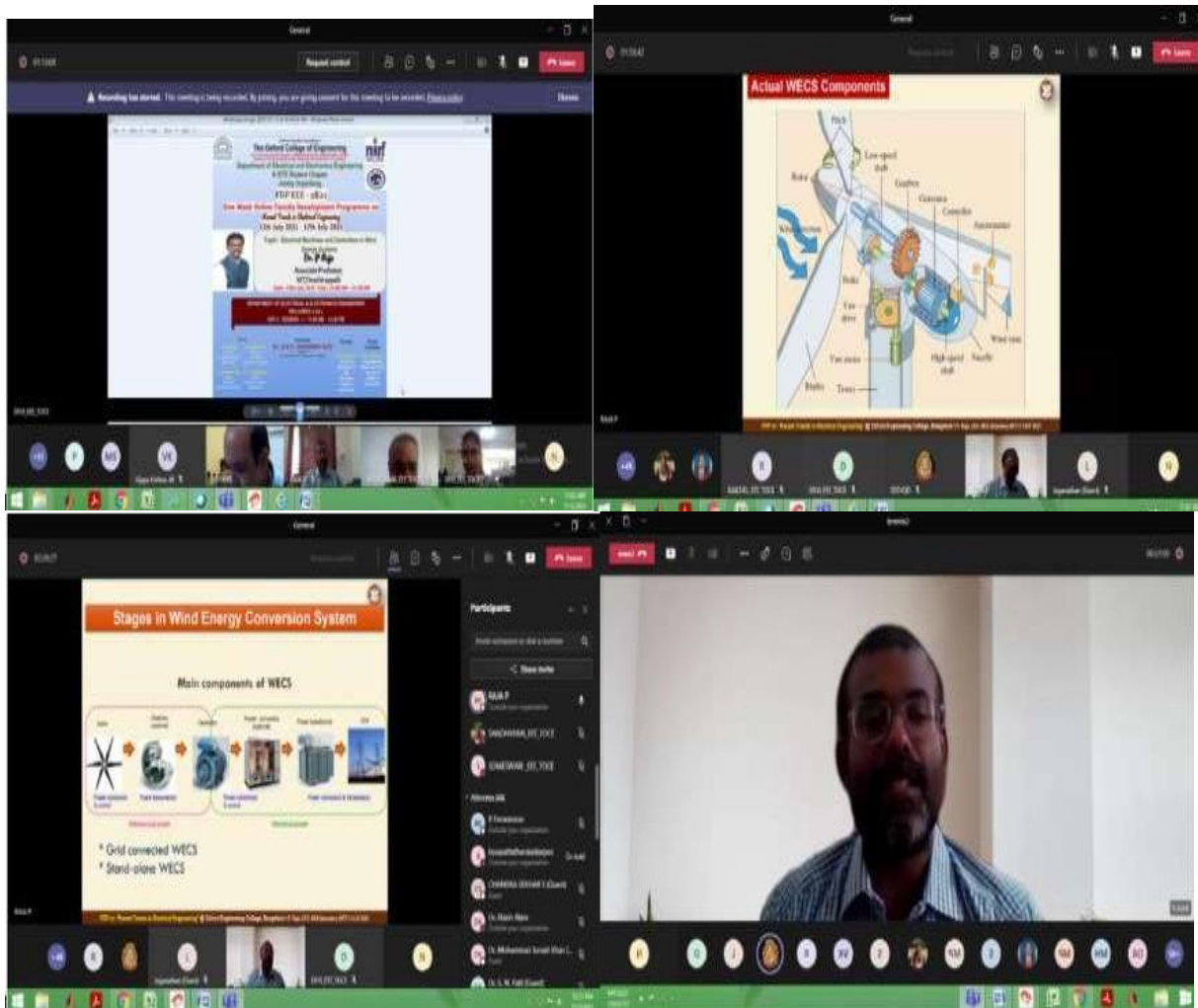
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**Day1 Sesion2**

**Day2: 13<sup>th</sup> July 2021 Session3(11:00 am-12.30 pm)**

The second day of the program started with a very interesting talk on Electrical Machines and Controllers in Wind Energy System by Dr. P Raja, Associate Professor, EEE dept NIT, Tiruchirapalli. Dr. P Raja has given a detailed explanation about wind energy conversion systems and its controls. Also, he has detailed about the performance of Wind energy Conversion Systems. The welcome address and vote of thanks to the resource person and participants was given by Mrs Raichel Ruby Associate Professor EEE dept





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**Day2:** 13<sup>th</sup> July 2021 Session 4 (2:00 pm-3.30 pm)

**Title:** Recent Trends in VLSI technologies an Automotive Perspective

**Resource Person:** Mr. Sivarama Subramanian Narayanan, Hardware Technical expert Robert Bosch Engineering and Business Solutions Bangalore

The fourth technical session was handled by Mr. Sivarama Subramanian Narayanan, Hardware Technical expert Robert Bosch Engineering and Business Solutions Bangalore. The Topic of the session was Recent Trends in VLSI technologies an Automotive Perspective. He has explained about the semiconductor crisis due to pandemic and its impact on automotive field. The welcome speech, introduction about the speaker and vote of thanks was given by Mrs. Nisha C Rani, Associate Professor, EEE Dept.

**Recent Trends in VLSI Technologies - An Automotive perspective Technology Roadmap**

- The International Technology Roadmap For Semiconductors 2.0: 2015
  - [www.itrs2.net](http://www.itrs2.net)
  - <https://itrs.ieee.org>
- ITRS SPONSORS
  - European Semiconductor Industry Association
  - Japan Electronics and Information Technology Industries Association
  - Korean Semiconductor Industry Association
  - Semiconductor Industry Association
  - Taiwan Semiconductor Industry Association

**Participants**

- Invited someone or dial a number
- Share invite
- ANOOP\_EEE\_TOCE
- DEVI\_EEE\_TOCE
- EEEHOD Organizer
- JAYAKUMAR\_EEE\_TOCE
- SANDHYARAJ\_EEE\_TOCE
- Sivaramasubramanian Narayanan Outside your organization
- Attendees (39)
- 170160109120 Outside your organization
- AFHAN TANZEEM
- Bharathi Rao (Guest)





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**Day3:** 14<sup>th</sup> July 2021 Session5 (11:00 am-12.30 pm)

**Title:** EV and Its Effect on Smart Grid

**Resource Person:** Dr. Jithendranath J, Associate Professor, Global Academy of Technology,

Bangalore the next session was about EV and its Effect on Smart Grid. The session was handled by

Dr. Jithendranath. He has given the overview of traditional power system and the challenges faced.

by the traditional grids. He has given a detailed explanation about smart grids, EV charging and grid

interaction. The welcome address was given by Mrs Sandhya Rai, Associate Professor, EEE dept

and Vote of thanks was given by Mrs. Someswari, Assistant Professor



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General

40:51

Request control

Smart Grid from an EV perspective

Recent Trends in Electrical Engineering



**Dr. Jithendranath. J**  
(Ph.D, IIT Kharagpur)  
Associate Professor, Department of EEE,  
Global Academy of Technology,  
Bangalore, Karnataka.

Webinar @ The Oxford College of Engineering, Bangalore By - Dr. Jithendranath J On 14 July, 2021

+39 M EEHOD DEVI\_EEE\_TOCE JAYAKUMAR\_EEE\_TOCE SOMESWARI\_EEE\_TO... Jithendranath

Windows Settings to activate Windows


59:41

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Smart Grid from an EV perspective

3. The hope and solution is..... "SmartGrid":

**Idea of "SmartGrid":**  
Making the system to work/respond smarter



Webinar @ The Oxford College of Engineering, Bangalore By - Dr. Jithendranath J On 14 July, 2021

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11:35 AM 7/14/2021



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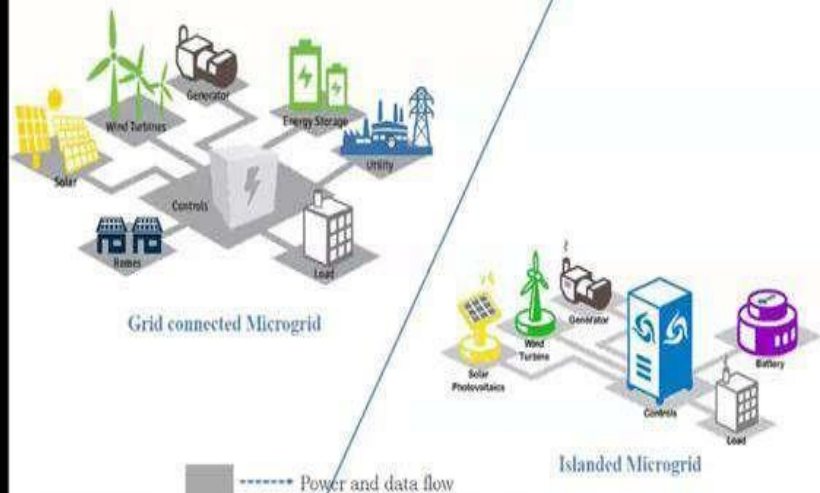
A One Week Online Faculty Development Programme on Recent Trends in Electrical Engineering From 12th July 2021 - 17th July 2021

01:25:23

Request control



## Smart Grid from an EV perspective



J Jithendranath

Webinar @ The Oxford College of Engineering, Bangalore

By - Dr. Jithendranath J

On 14 July, 2021

Activ





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**Day3:14<sup>th</sup>** July 2021 Session 6 (2:00 pm-3.30 pm)

**Tile:** Smartmetersin Smart Grid

**Resource Person:** Dr. SridharS, Associate Professor, MSRIT, Bangalore.

The sixth session of the FDP was in the topic Smart meters in Smart Grid. The session washandled by Dr. Sridhar S. The session started with the welcome address by Mrs Sumitha T L, Assistant Professor, EEE dept. Dr Sridhar has detailed about the major transmission systemsinIndiaandbiggestblackoutsinthehistory.Hehasexplainedaboutthesmartgridconceptualmodel and realization. The vote of thanks was given by Resna S R, Assistant Professor, EEEdept.





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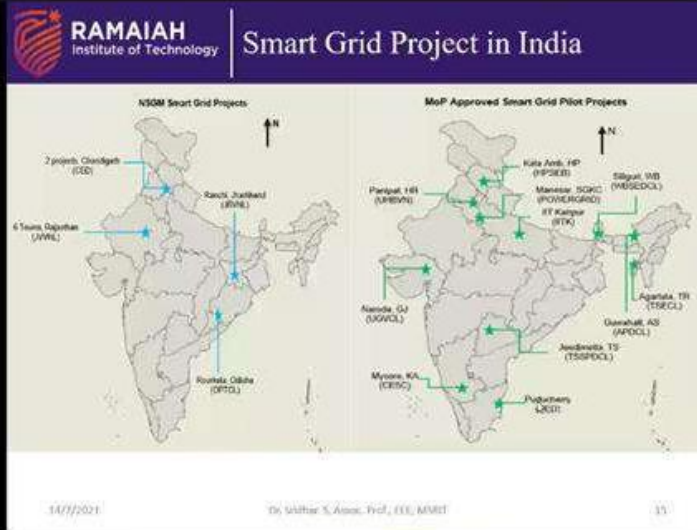
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03:55:13



Dr. Sridhar, S (Guest)

Dr. Sridhar, S (Guest)

33

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VK

DM

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DS

EEHOD

SUMITHA\_EEE\_TOCE

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Dr. Sridhar, S (Guest)

EEHOD

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Dr. Sridhar, S (Guest)

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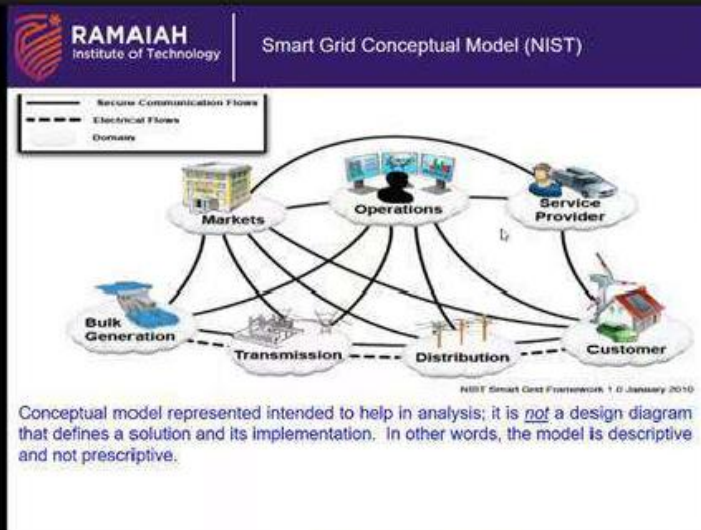
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Dr. Sridhar, S (Guest)

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Dr. Sridhar, S (Guest)

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Dr. Sridhar, S (Guest)

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**Day4:** 15<sup>th</sup> July 2021 Session7 (11:00 am-12.30 pm)

**Title:** Introduction to SolarPVSystems

**Resource Person:** Dr. B PradeepKumar, Assistant Professor, Kakatiya Institute of Technology and Science, Warangal.

The 7th session of the FDP was handled by Dr. B PradeepKumar. The topic was about Introduction to Solar PV system. The welcome address was given by MrsSandhyaRai

, AssociateProfessor, EEEdpt. The speaker has given a very good overview about the solar

PV systems and its characteristics. He has explained about the PV parameters and MPPT techniques. The vote of thanks was given by Mrs Someswari, Assistant Professor, EEEdpt.





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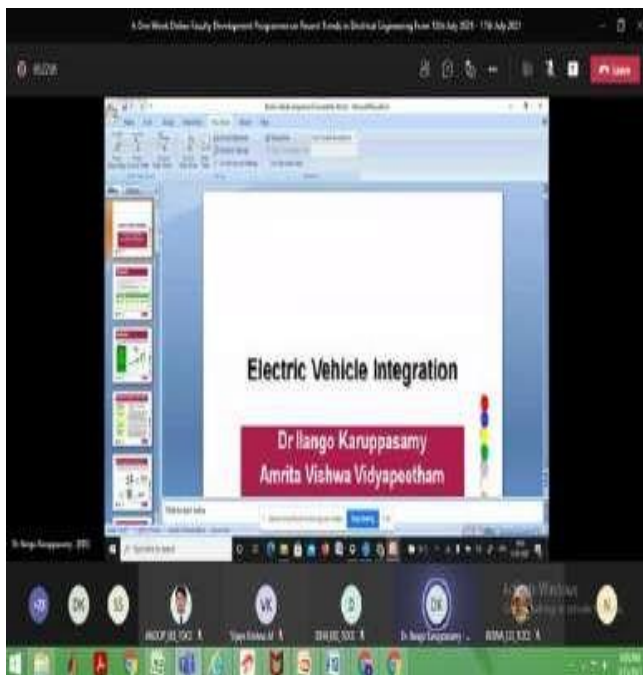
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**Day4:15<sup>th</sup>** July 2021 Session8 (2:00pm-3.30pm)

**Title:** Grid Integration of Electric Vehicles

**Resource Person:** Dr. Ilango Karuppuswamy, Assistant Professor, Amrita School of Engineering Coimbatore.

The next session was about Grid integration of Electric Vehicle handled by Dr. Ilango Karuppuswamy. He has detailed about the charging infrastructures and types and levels of charging. The welcome address was given by Mrs Resna S R, Assistant professor, EEE dept and the vote of thanks was given by Mrs. Sumitha TL, Assistant Professor, Dept of EEE.





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04:03:41

Leave

### Type of EV charging station

Home Charging Kiosk-side charging Commercial space charging Parking lot/ Group charging Public fast charging

Dr. Ilango Karuppesamy - [EEE]

ANOOP\_EEE\_TOCE VK DEV\_EEE\_TOCE DK Dr. Ilango Karuppesamy - RESNA\_EEE\_TOCE

Activate Windows  
Go to Settings to activate Windows.

2:43 PM  
7/15/2021



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**Day5:16<sup>th</sup>** July 2021 Session9 (11:00 am-12.30 pm)

**Title:** MEMS devices in Real World Applications

**Resource Person:**

The fifth day of the FDP started with a session by Dr Basudeva Behera on MEMS devices in real applications. The welcome address was given by Mr. Anoop, Assistant Professor, EEEdept. He has given a detailed explanation about the different types of MEMS actuators. The vote of thanks was given by Mrs. Manjushree, Assistant Professor, EEEdept.





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**EEE Dept Welcomes U All for FDP on Basic Fundamentals of Embedded Systems**  
Dr. Basudeba Behara, Assistant Professor, VIT-AP  
Date: 08th July 2021, 10:00am - 12:30pm

**Micro-electro-mechanical Systems**  
Micro-electro-mechanical systems (MEMS) is the combination of micro-sensors and/or micro-actuators and electronic devices.  
MEMS is an emerging technology which is fabricated using integrated circuit batch processing technologies on a single chip.

**Inertia Sensor for Automobile "Air Bag" Deployment System**  
Crash Sensor, Inflator, Air Bag, Nitrogen Gas, Sensor-on-a-chip: (the size of a rice grain), Ohw.  
Micro inertia sensor (accelerometer) in place:  
(Courtesy of Analog Devices, Inc)

Meeting in "General"  
01:26:24  
Request control  
Leave

Dr. Basudeba Behara (Guest)

JAYAKUMAR, EEE, TOCE  
DEVI, EEE, TOCE  
ANOOP, EEE, TOCE  
Dr. Basudeba Behara (Guest)  
EEEHOD

General  
02:15:03  
Leave

Dr. Basudeba Behara (Guest)

RV, PK, PM, KM, HU, VG, P, KV, SS, DR, D, N

Active  
11:43 AM  
7/14/2021

Active  
12:31 PM  
7/14/2021



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Day 5: 16<sup>th</sup> July 2021 Session 10 (2:00pm-3:30pm)

**Title:** Multi mode Single stage PV inverters: Operation and Derivation

**Resource Person:** Dr. Ashok Kumar, Assistant Professor, NITT iruchirappalli

The 10<sup>th</sup> session was handled by Dr. Ashok Kumar. The topic was Multi mode Single stage PV inverters. The welcome address is given by Mrs Prakruthi, Assistant Professor, EEE dept. He has explained about the multi level inverters and its operation. Vote of thanks was given by Ms Poornima, Associate Professor EEE dept

**Multi-modal inverters**

Based on no. of equivalent circuits employed

1. Quad-modal
2. Bi-modal (two cks)

Two buck-boost converters with two input sources

Operating sequence of circuits

Source under utilised

Mr. Shridhar S.M. JAYAKUMAR\_EEE\_TOCE PRAKRUTHI\_EEE\_TOCE EEEHOD Ashok Kumar



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**Day6: 17<sup>th</sup> July 2021 Session11 (12:00 am-12.30 pm)**

**Title:** Embedded System Challenges and Electrical Applications in Automotiv Resource

**Person:** Mr Shamin Dudu TS, General Manager, Power train Emobility, RobertBosch Engineeringand Business solutionsLtd Bangalore

The last day of the FDP started with the session by MrShaminDuduTS on Embedded System Challenges and Elctrical Applications on Automotives. He has detailed about the presentscenario of EVs and he has explained about the Electrical application and challenges inautomotive field. The welcome address and vote of thanks were given by Ms Poornima, Assistant Professor, EEE dept.







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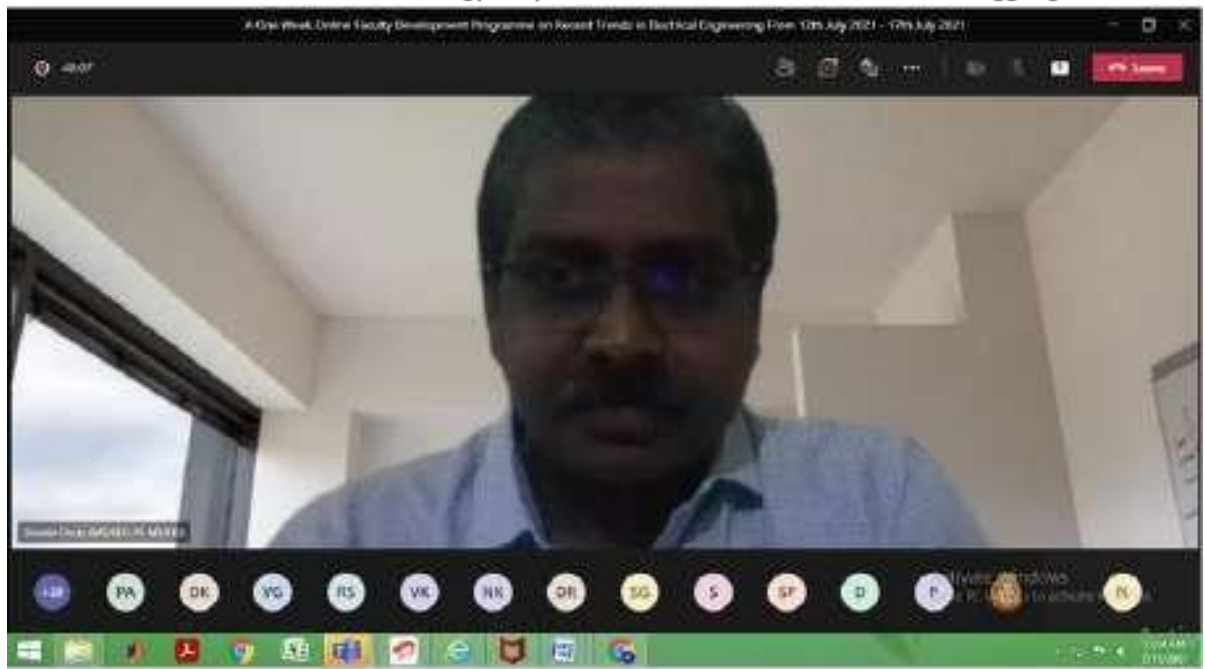
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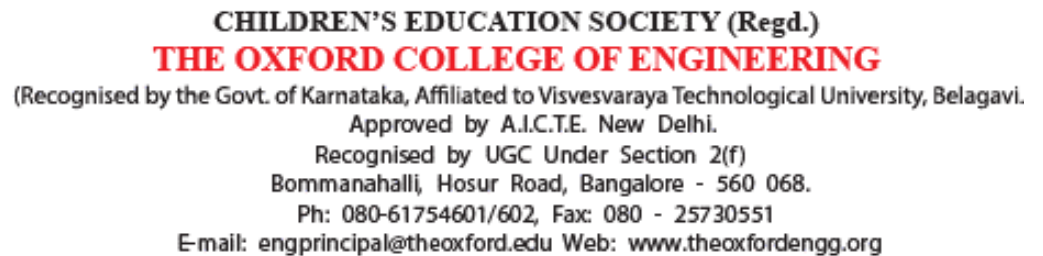
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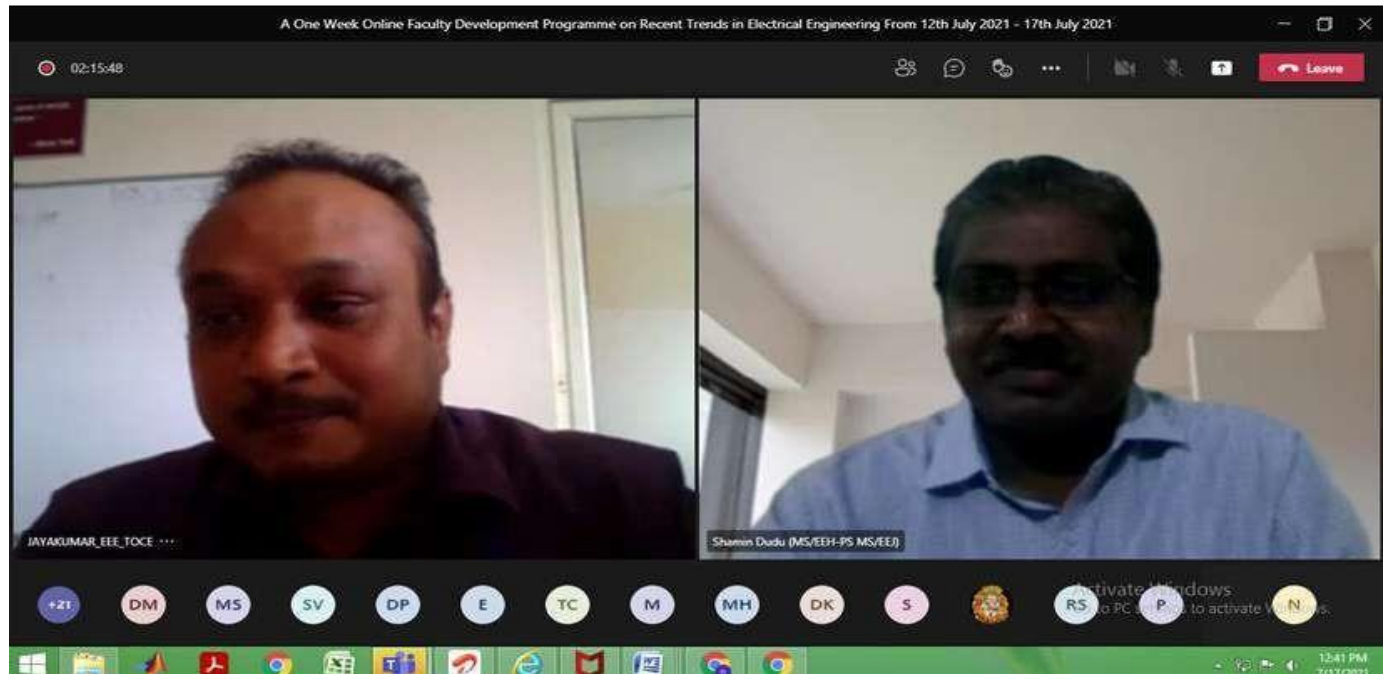
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**Day6:17<sup>th</sup> July 2021 Session 12 (2:00 pm-3.30 pm)**







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**Title:** Electric Vehicles

**Resource Person:** Mr. Bharath, Manager Sour Urja Vehicle Challenge.

Last session of FDP is by Mr. Bharath, He briefed about the Electric Vehicle dynamics and importance in the present situation. Operating condition of EV, BMS algorithms, Economics aspects, Funding prospective in the Electric Vehicle and all discussed in lucid manner which motivated all the participants to ask more questions during the session as well as after the session also. With his session FDP was ended with happy learning. Prof. Someswari introduced the speaker and Prof. Poornima delivered Vote of thanks





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**Valedictory Event:**

On 17.07.2021 at 3.30 p.m, we had a Valedictory session with Our HOD, Co ordinator and all the faculty members with the presence of last session speaker Mr. Bharath.

HoD of EEE Dr. V.S. Bharath concluded FDP with his wonderful thank giving note to all the participants, Management, Principal, Directors of TOCE and Organising committee members of this FDP for the smooth conduction of this one week FDP through Virtual mode.

Prof. Jayakumar, Summarised the 6 days session and delivered vote of thanks to all. With this we concluded our FDP.





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Meeting in "General"

05:14:44

Request control

DEPARTMENT OF EEE

Department Vision & Mission

**Vision:**  
Equipping Electrical and Electronics Engineering professionals in the cutting edge technologies of Electrical Science to meet the needs of the ever-changing world.

**Mission:**  
M1: To learn and experiment most recent innovations in Electrical and Electronics Engineering related to industry.  
M2: To provide state of art facilities for the continuous improvement in teaching learning process and research activities in multidisciplinary areas.  
M3: To emphasis ethics, leadership, entrepreneurship skilled Electrical and Electronics Engineers.

Dr. Bharath V S  
HOD / EEE  
The Oxford College of Engineering

DEV\_EEE\_TOCE

JAVAKUMAR\_EEE\_TOCE

EEEHOD

MANUSHREE\_EEE\_TOCE

DEV\_EEE\_TOCE

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17-07-2021

A One Week Online Faculty Development Programme on Recent Trends in Electrical Engineering From 12th July 2021 - 17th Ju

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SANDHYARA\_EEE\_TOCE

SOMESWARI\_EEE\_TOCE

SUMITHA\_EEE\_TOCE

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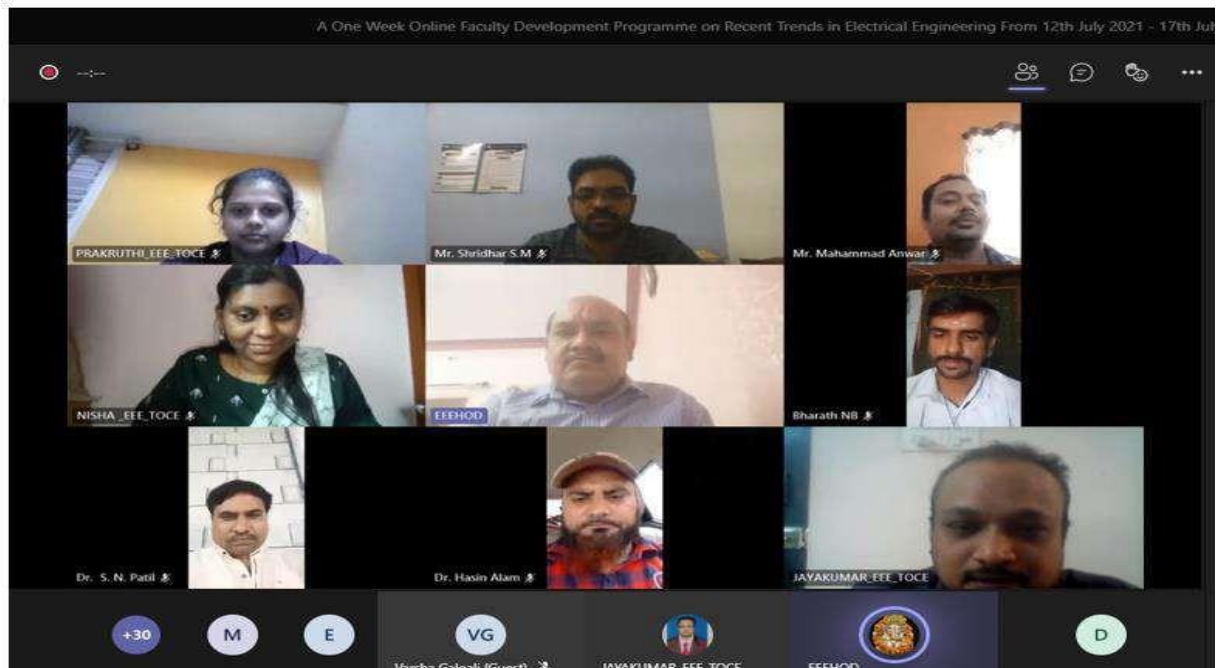
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**Feed backfrom the Participants:**

Overall feedback from the participants expressed their happiness and great learning

Throughout the sessions. All the participants were well satisfied with the speakers and their delivery of knowledge sharing.



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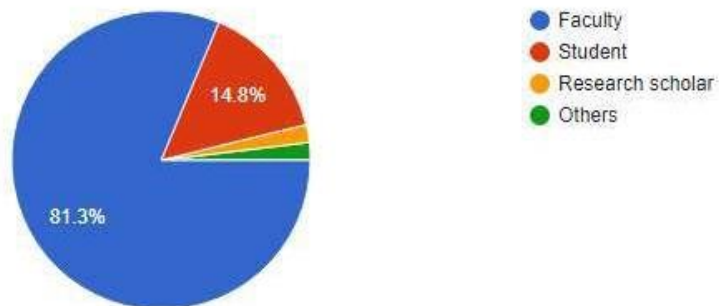
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### Registration Details

The FDP was attended by 209 participants from faculty members & Research Scholars of EEE, ECE, ME, Basic Science department of different colleges from various states all over India. The participants include faculties, PG students, Research Scholars and from industries

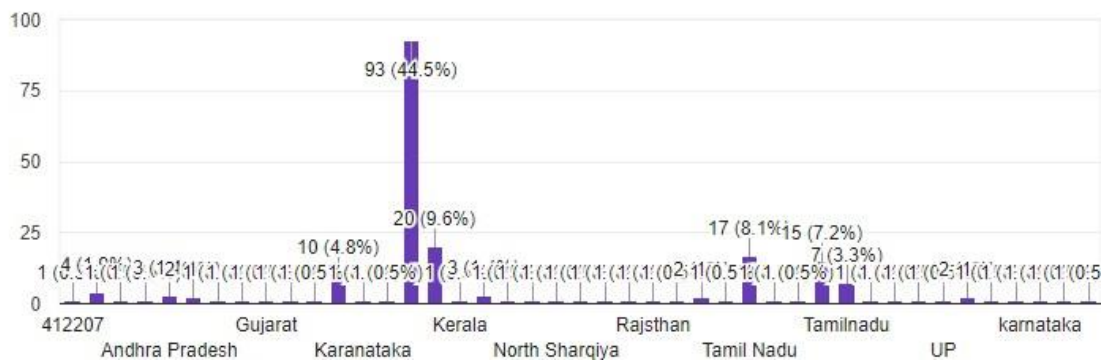
Profession

209 responses



State:

209 responses





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**Academic year 2020 -21(Odd Sem)**

Report on AICTE sponsored Phase 1 FDP on "Bioinnovation, Patenting and entrepreneurship opportunities in Biotechnology for sustainable environment "from 15<sup>th</sup> to 26<sup>th</sup> February 2021

TH FEBRUARY TO 26<sup>TH</sup> FEBRUARY'."/>

**THE DEPARTMENT OF BIOTECHNOLOGY**  
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**AICTE SPONSORED**  
**TWO WEEKS FACULTY DEVELOPMENT PROGRAMME**  
**ON**  
**"BIO INNOVATION, PATENTING**  
**AND ENTREPRENEURSHIP OPPORTUNITIES**  
**IN BIOTECHNOLOGY FOR SUSTAINABLE ENVIRONMENT"**

**DATE**  
**15<sup>TH</sup> FEBRUARY**  
**TO**  
**26<sup>TH</sup> FEBRUARY**

**About the Institution**

The Oxford College of Engineering (TOCE) is one of the most prestigious institutions run by the Children's Education Society. TOCE aims at carving competent students with extraordinary skills to face challenges of the continuous changing world. TOCE provides quality training in professional education in values in Engineering, Management and Computer application streams. The College has 11 Research Centre approved by VTU to carryout Ph.D. and M.Sc. Engineering Programmes. The Institution is well known for its Consultancy & Research and Development activities. Various Departments have financial assistance from reputed state (VCST/KSCST/VTU) & Central (DRDO-NRB, DAE-BRNS, AICTE, ICMR, NIF, DBT-BIRAC) funding agencies to cater the need of young researchers and students in engineering and management.

**About the Department**

Biotechnology Engineering is a multi-disciplinary having applications in multiple fields including health care, agriculture, food industry and environmental issues. It has encompassed all the fields of life and technology, and is currently a multi-billion enterprise. This rapidly advancing branch was initiated in our college in the year 2003. Since then, this Department is growing vertically in terms of academics, research, co-curricular and extracurricular activities facilitating the all round growth of students.

The department is permanently affiliated to VTU and has been accredited by National Board of Accreditation (2019) & NAAC. The department has bagged ranks in both UG and PG programs. The department has excellent infrastructure involving well maintained classrooms and highly equipped laboratories which are designed for today's technological challenges. The department is doing outstanding research work in VTU approved Research and Development (R&D) Centre. The department has established unique research facilities, viz., Centre for Natural Product Research (With financial assistance from VTU, AICTE, New Delhi & DAE-BRNS, DRDO, New Delhi); Centre for Computational Medicinal Chemistry in Drug Discovery (with financial assistance from Vision Group of Science and Technology Govt. of Karnataka) and Centre for Bioremediation (With financial assistance from Naval Research Board, DRDO, New Delhi & DBT-BIRAC, New Delhi).

In these R&D centres, several funded research projects have already been conducted and continuing. Research grants have been received from various national and state government funding agencies like DBT-BIRAC, DRDO-NRB, DAE-BRNS, AICTE, VCST-KFIST, VTU, KSCST and NIF. These projects are instrumental in strengthening our core research activities which are beneficial to both students and staff. They have also generated sufficient amount of funds to equip our department with necessary instrumentation and other requirements. Highly qualified and seasoned faculties who are capable of sustaining the overall growth of students are also actively involved in conducting various programmes and activities in the department. The department is proud to announce that a domestic patent is filed and a Bioremediation product, PRISOZAP is developed to address Bioremediation of hydrocarbons and oil spill with financial assistance under BIRAC.

**About the FDP**

High-quality professional training programs for faculty members have become essential to higher education institutions in order to be able to compete in this ever-changing world. It is clear that faculty development has become well established and has grown into a recognized activity within higher education. Faculty development programs (FDPs) have proven to be successful for improving teaching skills in higher education.

The biotechnology industry diligently pursues better, faster and more effective methods of translating ideas into marketable commercial products. Products are produced by companies and companies are started and managed by entrepreneurial leaders. Leaders are groomed in academic institutions and faculty is the pillars of institution. Therefore, it is vital for nation to have faculty who produce more effective entrepreneurial leaders and managers who are knowledgeable and better equipped.

This faculty development program aims at upgrading the skills necessary to make wise decisions for building successful biotechnology entrepreneurs. Further, the FDP aims to explore the opportunities in bio-entrepreneurship evaluation & Assessment of grant proposals/business plans, funding opportunities by analyzing the schemes of funding agencies (DBT, DST, SERB, etc.). To understand the patentability criteria, viable aspect of the patent, importance and scope of IPR in academic researches, researching around patents, patent expiry, entrepreneurship and translating research culture in academics.

**Mode of conduction:**  
FDP will be conducted on-line using Microsoft Teams platform. The participants have to register and session link will be shared to the shortlisted participants.

**Who can Attend:**  
Faculty members from the AICTE approved institutions, Government Organisation, Universities, Colleges and Industry professionals working in the related area can register.

**Registration:**  
Last date for Registration: 10<sup>th</sup> February 2021  
**No Registration Fee**  
Participants have to register by using the below link:  
<https://forms.gle/9LnXyKqGDeh9d8z6>  
Scan QR for Registration

**E-mail:** fdpbtoxford@gmail.com

**Note:**  
A test will be conducted at the end of the program & e-certificate will be issued to those participants who have attended the program & have qualified in the test.

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**Patrons**  
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Director, The Oxford  
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Dr. C.P. Raju,  
Principal, The Oxford  
College of Engineering

**Convener**  
Dr. Manjunath B. K.,  
Head of the Department,  
Professor, Dept. B & D,  
Dept. of Biotechnology

**Faculty Coordinators**  
Dr. Valarmathy K.,  
Asst. Professor,  
(Ph. No. 9729620792)  
Ms. Divyansu R.,  
Asst. Professor,  
(Ph. No. 9729620792)

**Knowledge Partners**  
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The Department of Biotechnology of The Oxford College of Engineering organised AICTE sponsored two weeks Faculty Development Program titled "Bioinnovation, Patenting and Entrepreneurship Opportunities in Biotechnology for Sustainable Environment" from 15<sup>th</sup> to 26<sup>th</sup> of February 2021, in association with Karnataka state Council for Science and Technology, Government of Karnataka and Visvesvaraya Trade Promotion Centre (VTPC), Department of Industries & Commerce, Government of Karnataka, as knowledge partners for the benefit of all the faculty members.

**Day 1: 15<sup>th</sup> February 2021**

The FDP included a formal inaugural session compered by Mrs. Valarmathy K of Dept of Biotechnology, with invocation and a lamp lighting ceremony. The distinguished people in the meeting were Dr. G.T. Raju, Principal TOCE, and Dr. Amarnath K, Director, The Oxford Educational Institutions, also the Chief Guest on the occasion Dr. Manpreeth Singh Manna, Former Director, Sant Longowal Institute of Engineering and Technology, Punjab, Dr. BK Manjunath, HOD, Dept of Biotechnology, The Oxford College of Engineering. Guest of Honour was Smt. Dr. Rangaswamy, Registrar, Visvesvaraya Technological University. The session was presided by the Chairman of The Oxford Educational Institutions, Sri. S N VL Narasimha Raju garu.

The welcoming speech was delivered by Dr. R.V. Praveena Gowda, Principal TOCE, who briefed about the objectives and the purpose of conducting this program. Dr. Manjunath, BT HOD of Biotechnology and the convenor of FDP spoke about the need of pedagogy in Engineering role of a teacher in igniting the young mind towards innovation through advanced teaching methods and highlighted the benefits of collaborative research, innovation and appreciated the kind support extended by VTPC in organising the FDP. The programme progressed with the inaugural lecture by the Chief Guest, Dr. Manpreeth Singh Manna. In his talk he highlighted the R&D innovations in the perspective of Accreditation. The guest of honour, Dr. B.E. Rangaswamy, Registrar, VTU, gave the theme facilitation, where he addressed the importance of the program for the academicians. He also gave a glimpse of the activities going on in the Oxford College of Engineering. The post-lunch session was presented by Dr. Jaganath, Pasteur, Conoor, where he emphasized about vaccine development process and production.



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**Day2:16<sup>th</sup> February2021**

The second day started off with the lecture of Dr.B.K. Manjunath, BT HOD, TOCE.His talk was based on strategies for product development in the current perspective. The next lecture was given by Smt.Prabavathi Rao who talked about Vtpc initiative to promote GIs, as an important tool. The programme progressed with the lecture by Dr.S. Ayyappan, Chancellor, Central Agricultural University, Imphal, in which he talked about IoT in agriculture.

**Day3:17<sup>th</sup> February2021**

The third day started with the lecture of Dr.R. Rajesh Kumar who talked on the integrated sustainable agriculture & rural Bio-entrepreneurship. The next lecture was given by Dr. Paramasivan, Scientist, ICMR, on the topic of vector borne disease in India and the need for options for innovation. The next talk was about intellectual property as a powerful tool to protect Biotech innovation by Mr. Vivek Anand Sagar. KSCST.

**Day4: 18<sup>th</sup> February 2021**

The fourth day started with the lecture about entrepreneurship & Bio-innovation challenges & opportunities by Dr. Shridhar Hari Krishna Murthy, Scientific Advisor, VNSE nviro Biotech Pvt Ltd, Chennai. The second talk was delivered by Dr. T. Srinivas, IISC, on optical biosensors. As the last session of the day, Dr. Devaneyan, Director-Innovation & Entrepreneurship Professor-Sustainable Energy, MAHER-Meenakshi Academy of Higher Education & Research, highlighted about Bio-Innovation products and Entrepreneurial opportunities.

**Day5:19<sup>th</sup> February 2021**

The fifth day started with talk on the concepts & design intricacies of brain computer interfacing by Dr. Ramasubba Reddy, IISC. The day progressed with the next lecture by Dr. Bijay Kumar Sahu, NRDC, who emphasised on IP Protection and Tools of IP. The last session was engaged by Dr. Bharath, Atrime Pharmaceuticals Ltd, who talked on the need of bioinformatics and highlights of how to cut the cost and break the IP.

**Day6:20<sup>th</sup> February 2021**

On the sixth day, Dr.N.G. Lakshmi Narayan, NRDC, talked about NRDC-Transforming Innovative Research in to Profitable Technology. In the second session, Dr. Yogamaya, Deputy Manager, Biotech Consortium India Ltd (BCIL), New Delhi, talked about aligning applied research in Biotech for enhancing commercialization success.





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The last session was taken over by Dr. Brinda, IP attorney Consultant, IISC, who talked on Patenting biotechnological inventions.

**Day7:22<sup>nd</sup> February 2021**

The seventh day of the program started with the lecture by Dr. Nandhini, G.I. Expert Consultant, Foundation for revitalization for Local Health Traditions, who emphasised on the procedure of patenting. The program progressed with the next lecture by Dr. Sarasija, Tutor, Wipro & Advisory member KSCST, who talked about the prior art search related to biotechnology inventions.

**Day8:23<sup>rd</sup> February 2021**

The eighth day of the program commenced with the technical talk by Dr. Sundaresan, CMAP who gave details on medicinal and aromatic plants and about the prospects in cultivation and enterprises. The session was then taken over by Dr. Farah Deba, Former Scientist, Monsanto who emphasized on the identification of patents at the early stage of biotech inventions.

**Day9:24<sup>th</sup> February 2021**

The ninth day of the program began with the lecture by Dr. Sumitha Mishra, Amity University on the topic innovative research in thermal imaging for biomedical and agriculture applications. The second session was engaged by Dr. Padmapriya V Khurana, KSCST who discussed about Patent Drafting of Bio-Tec Inventions Techniques for biotechnology inventions.

**Day10:25<sup>th</sup> February 2021**

The tenth day of the program started with technical talk by Dr. N. Sriram, MSRIT, who explained about Bio-Innovation: MAKERSPACE-Idea to Prototype. The next talk was on the reply to examination report of patent application related to Bio-Tec Inventions by K S Dhurgesh, KSCST.

**Day11:26<sup>th</sup> February 2021**

The final day of the program started with informative lecture given by Mr. Gaurav Mishra Banana, KSCST, who emphasized on Infringement & Exceptions Under Patent Law Bio-Tec Research— Bolar exception and Bioequivalence.

This led to the end of the series of lectures in the two weeks programme. The program on the whole was very informative.



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The Valedictory session was presided by Shri.S.N.V.L Narasimha Raju ,Chairman ,TheOxford Educational Institutions, Dr.B.K.Mnjaunath gave a detailed summary through presentation about the details of technical talks happened during the 14 days FDP and the participants were over whelmed with the FDP and they expressed their happiness during the feed back session and the 14 days event was ended with the vote of thanks by Dr.K.Valarmathy,Associate Professor, Department of Biotechnology, The Oxford College of Engineering. This led to the end of the series of lectures in the two weeks programme. The program on the whole was very informative.



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## Album of FDP event







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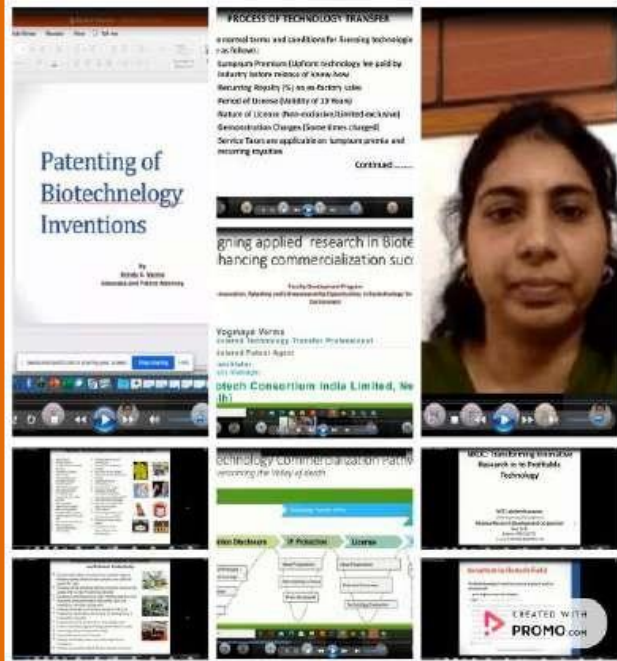
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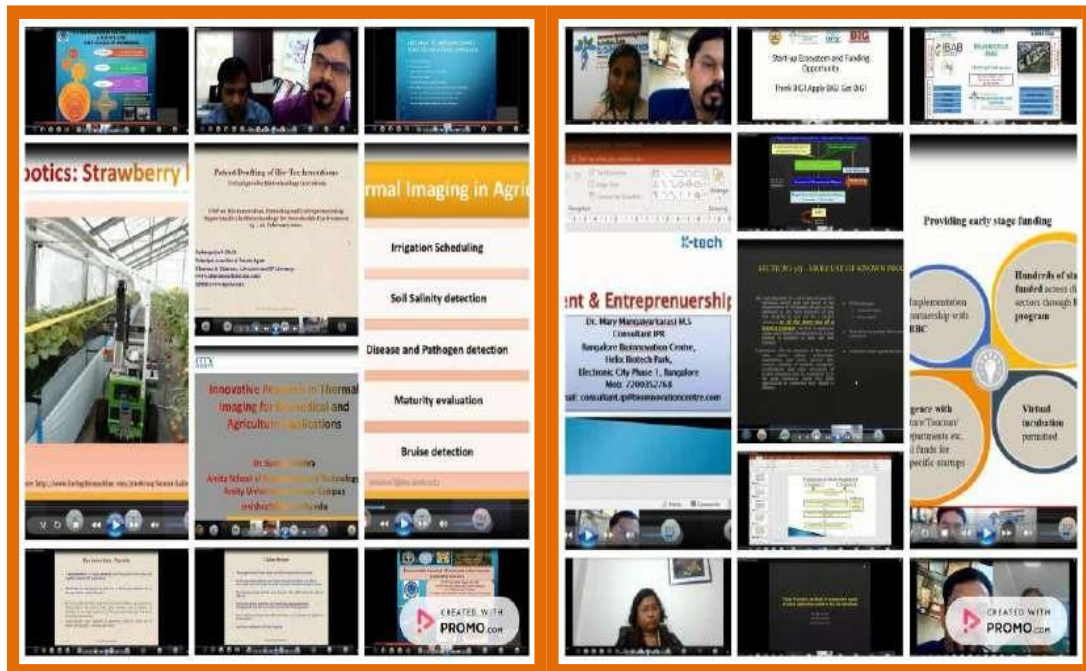
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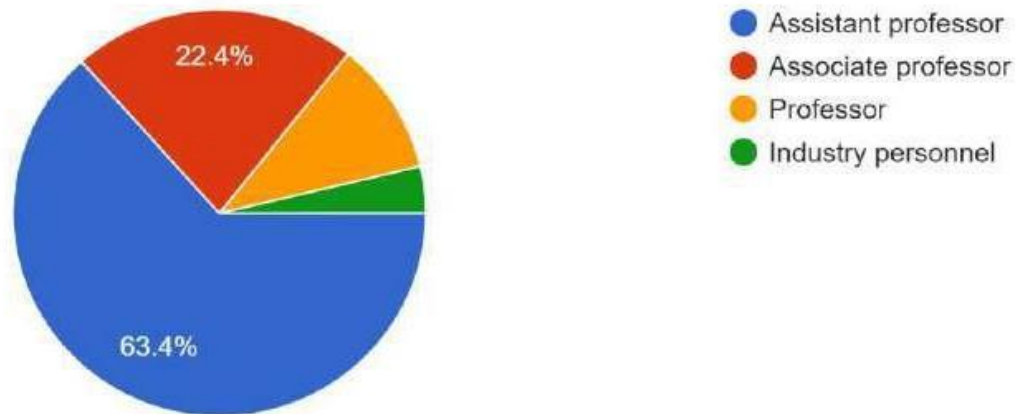
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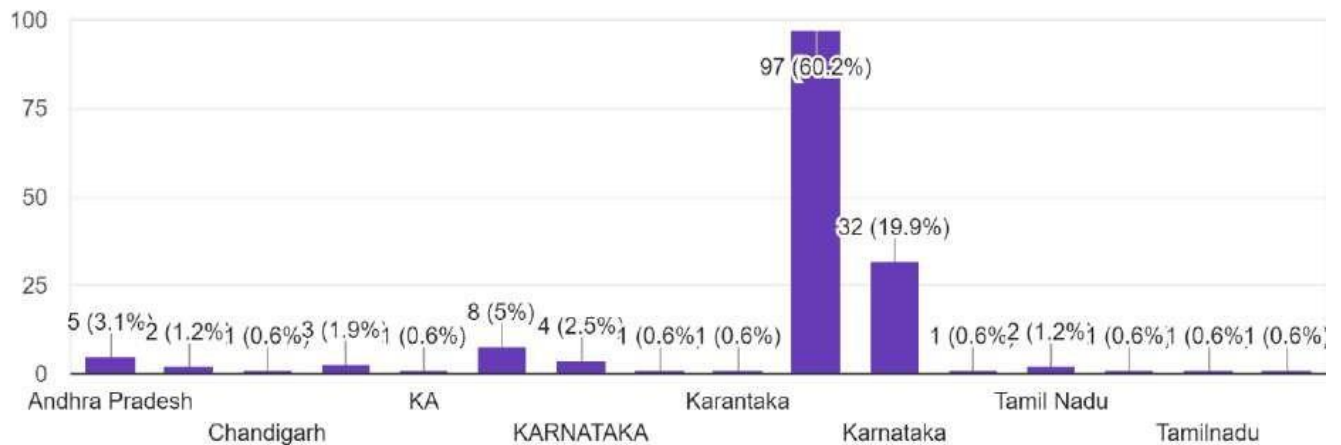
**Designation**

161 responses



**State**

161 responses







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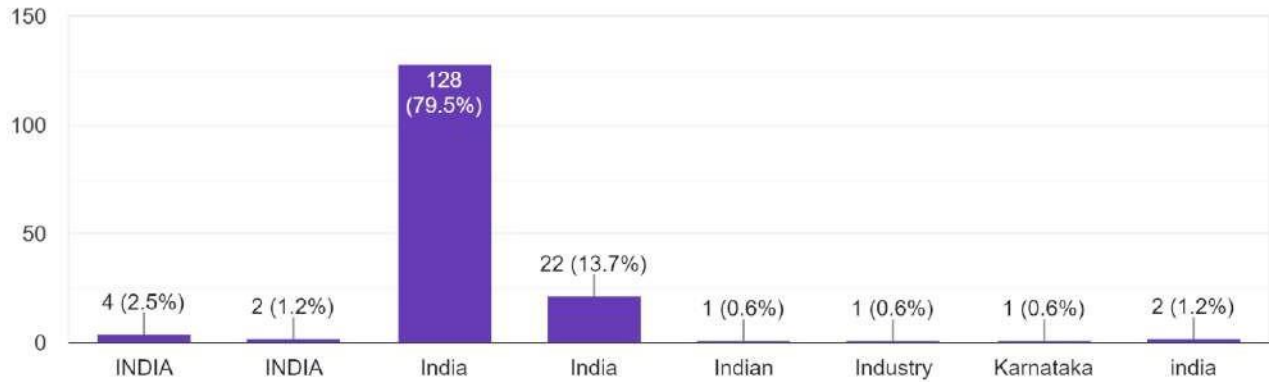
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### About the Institution

The Oxford College of Engineering (TOCE) is one of the most prestigious institutions run by the Children's Education Society. TOCE aims at carving competent students with extraordinary skills to face challenges of the continuous changing world. TOCE provides quality training in professional education in values in Engineering, Management and Computer application streams. The College has 11 Research Centre's approved by VTU to carryout Ph.D. and M.Sc. Engineering Programmes. The institution is well known for its Consultancy & Research and Development activities. Various Departments have financial assistance from reputed state (VGST/KSCST/VTU) & Central (DRDO-NRE, DAE-BRNS, AICTE, ICMR, NIF, DBT/BIRAC) funding agencies to cater the need of young researchers and students in engineering and management.

### About the Department

Biotechnology Engineering is a multi-disciplinary having applications in multiple fields including health care, agriculture, food industry and environmental issues. It has encompassed all the fields of life and technology, and is currently a multi-billion enterprise. This rapidly advancing branch was initiated in our college in the year 2003. Since then, The Department is growing vertically in terms of academics, research, co-curricular and extracurricular activities facilitating the all round growth of students.

The department is permanently affiliated to VTU and has been accredited by National Board of Accreditation (2019) & NAAC. The department has bagged ranks in both UG and PG programs. The department has excellent infrastructure involving well maintained classrooms and highly equipped laboratories which are designed for today's technological challenges. The department is doing outstanding research work in VTU approved Research and Development (R&D) Centre. The department has established unique research facilities, viz., Centre for Natural Product Research (With financial assistance from VTU, AICTE, New Delhi & DAE-BRNS, DRDO, New Delhi); Centre for Computational Medicinal Chemistry in Drug Discovery (with financial assistance from Vision Group of Science and Technology, Govt. of Karnataka) and Centre for Bioremediation (With financial assistance from Naval Research Board, DRDO, New Delhi & DBT-BIRAC, New Delhi).



In these R&D centres, several funded research projects have already been conducted and continuing. Research grants have been received from various national and state government funding agencies like DBT-BIRAC, DRDO-NRE, DAE-BRNS, AICTE, VGST-KFIST, VTU, KSCST and NIF. These projects are instrumental in strengthening our core research activities which are beneficial to both students and staff. They have also generated sufficient amount of funds to equip our department with necessary instrumentation and other requirements. Highly qualified and seasoned faculties who are capable of nurturing the overall growth of students are also actively involved in conducting various programmes and activities in the department. The department is proud to state that, a domestic patent is filed and a Bioremediation product PETROZAP is developed to address Bioremediation of hydrocarbons and oil spill with financial assistance under BIRAC.

### About the FDP

High-quality professional training programs for faculty members have become essential to higher education institutions in order to be able to compete in this ever-changing world. It is clear that faculty development has become well established and has grown into a recognized activity within higher education. Faculty development programs (FDPs) have proven to be successful for improving teaching skills in higher education.

The biotechnology industry diligently pursues better, faster, and more effective methods of translating ideas into needed commercial products. Products are produced by companies, and companies are started and managed by entrepreneurial leaders, leaders are groomed in academic institutes and faculty is the pillars of institution. Therefore, it is vital for nation to have faculty who produce more effective entrepreneurial leaders and managers, who are knowledgeable and better equipped.

This faculty development program aims at upgrading the skills necessary to make wise decisions for building successful biotechnology entrepreneurs. Further, the FDP aims to explore the opportunities in bio-entrepreneurship evaluation & assessment of grant proposals/business plans, funding opportunities by analyzing the schemes of funding agencies (DBT, DST, SERB, etc.). To understand the patentability criteria, viable aspect of the patent, importance and scope of IPR in academic researches, researching around patents, patent expiry, entrepreneurship and translating research culture in academics.





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**Mode of conduction:**

FDP will be conducted on-line using Microsoft Teams platform. The participants have to register and session link will be shared to the shortlisted participants.

**Who can Attend:**

Faculty members from the AICTE approved institutions, Government Organization, Universities, Colleges and Industry professionals working in the related area can register.

**Registration:**

Last date for Registration: 3<sup>rd</sup> March 2021

**No Registration Fee**

Participants have to register by using the below link:

<https://forms.gle/Ge2WFbpo2ICVNECL8>

Scan QR for  
Registration



E-mail: fdpbtoxford@gmail.com

**Note:**

A test will be conducted at the end of the program & e-certificate will be issued to those participants who have attended the program & have qualified in the test.

**Chief Patron**

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of Institutions

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Director, The Oxford  
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Dr. G. T. Raja,  
Principal, The Oxford  
College of Engineering

**Convener**

Dr. Manjunath. B. K.  
Head of the Department,  
Professor, Dean R & D  
Dept. of Biotechnology

**Faculty Coordinators**

Dr. Valarmathy K.      Mr. Divakara R.  
Associate Professor      Asst. Professor  
(Ph No. 9739972703)      (Ph No. 9972744922)  
Ms. Salma Kauser M  
Asst. Professor  
(Ph No. 9980816326)

**Knowledge Partners**







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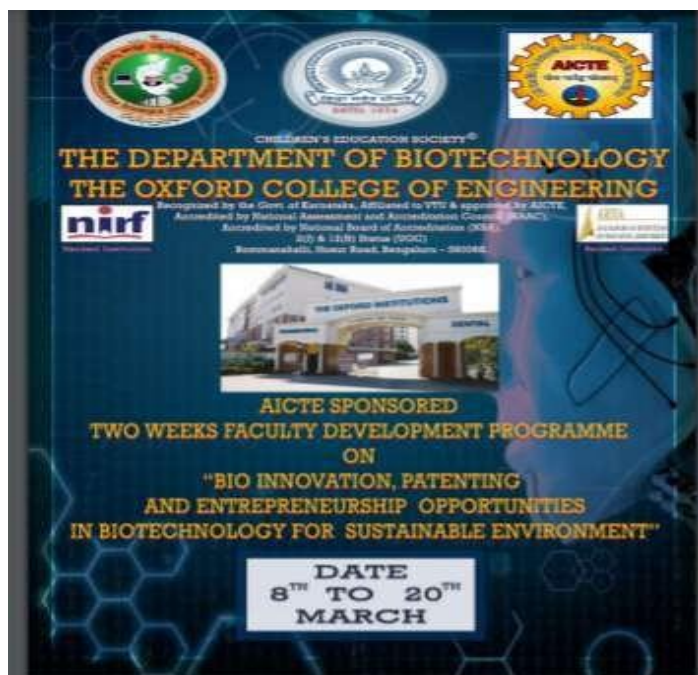
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**Academic year 2020 -21 (Odd sem)**

**Report on AICTE sponsored Phase 2 FDP on "Bioinnovation, Patenting and entrepreneurship opportunities in Biotechnology for sustainable environment" from 8<sup>th</sup> to 20<sup>th</sup> March 2021**



The Department of Biotechnology of The Oxford College of Engineering organised AICTE sponsored two weeks Faculty Development Program titled "Bioinnovation, Patenting and Entrepreneurship Opportunities in Biotechnology for Sustainable Environment "from 8<sup>th</sup> to 20<sup>th</sup> of March 2021, in association with Karnataka state Council for Science and Technology, Government of Karnataka, Bangalore Bioinnovation centre and Visvesvaraya Trade Promotion Centre (VTPC), Department of Industries & Commerce, Government of Karnataka, as knowledge partners for the benefit of all the faculty members .



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**Day1: 8<sup>th</sup> March 2021**

The FDP included a formal inaugural session compered by Mrs.Valarmathy K of Dept of Biotechnology, with invocation and a lamp lighting ceremony. The distinguished people in the meeting were Dr. R.V. Praveena Gowda, Principal TOCE, and Dr. Amarnath K, Director, The Oxford Educational Institutions, also the Chief Guest on the occasion Dr. JitendraKumar, Managing Director, Bangalore Bioinnovation Centre (BBC), Dr. B K Manjunath, HOD, Dept of Biotechnology, The Oxford College of Engineering. Guest of Honour was Dr. Hrishikesh Damle, MD & CEO, Atrimed Pharmaceuticals and Dr. Ramaswamy RajeshKumar, Professor, College of Agriculture and Biotechnology, Zhejiang University, China as Key note speaker. The session was presided by the Chairman of The Oxford Educational Institutions, Sri. S N V LNarasimha Raju garu.

The first talk was delivered by Dr. Jitendar Kumar on "Creating an Innovative Ecosystem in Life Science". Dr. Kumar emphasized on various factors that enhance the growth of biotechnology clusters and added a note on the services offered by Bangalore Bioinnovation Centre (BBC) in creating an innovation ecosystem.

The next session was by Dr. Hrishikesh Damle on "Starting your own company". Dr. Damle discussed indetail the qualities needed to be an entrepreneur along with the difficulties faced during the initial times ofhis company, Atrimed Pharmaceuticals.

Keynote speech was delivered by Dr. Ramaswamy Rajesh Kumar on "Integrated sustainable agriculture andruralbio-entrepreneurship". Dr. Kumare laborated on the global challenges arising from various an thropological activities and the inventions related to sustainable agriculture.

**Day 2: 9<sup>th</sup> March 2021**

The second day started off with an interesting speech on "Plant specialized metabolism and its engineering for commercial production of high value metabolites" by GirinathG. Pillai, PhD. Sir spoke of evolution ofplant genome. The next session was delivered by Dr. K.S. Jagadeesh on "Towards development of abiostimulantusingforestgeneticresourcesforuseinagriculture". Dr. Jagadeesh discussed about biostimulants, production, advantages of biostimulants over chemical fertilizers and their market potential.



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The last session of day 2 was handled by Dr. Srinivasa Mutalik on "Nanocarriers as drug delivery vehicles: overview and case studies". Dr. Mutalik gave a detailed lecture on the use of nanotechnology in drug delivery system.

**Day 3: 10<sup>th</sup> March 2021**

The third day started with technical talk by Dr. N. Sriram who delivered a speech on "Bio-innovation: Makerspace- Idea to prototype". Dr. Sriram spoke of different inventions in the field of health sciences and wearable electronics. Session 2 was engaged by Dr. Ramakanth from Nishant Aromas Pvt. Ltd. Dr. Ramakanth elaborated on various MSME opportunities on aromatic plants. Session 3 was handled by Dr. Srinivas B V from Aspartika Biotech Pvt Ltd. Dr. Srinivas spoke on various innovative ideas for start ups.

**Day 4: 12<sup>th</sup> March 2021**

The fourth day began with a talk on "Role of MSME in Indian economy" by Dr. Gopinath Rao from MSME Development Institute, Govt. of India. Dr. Gopinath talked us through various schemes offered by the Govt. of India along with a number of challenges faced by MSMEs. Session 2 for the day was engaged by Dr. Kailash Chandra Khulbe from CSIR-Indian Institute of Toxicology Research, on "Entrepreneurship: commercialization of scientific knowledge base". Dr. Khulbe elaborated on various probabilities to commercialize a scientific idea. Session 3 was engaged by Dr. Pradeep Kumar Verma from NMRL on "Innovations in marine biotechnology". Dr. Verma introduced the audiences to various aspects of marine biotechnology, creation of novel products from marine ecosystems and plenty of opportunities marine biotechnology has to offer to the young minds.

**Day 5: 13<sup>th</sup> March 2021**

The fifth day started with talk on the concept "Plant viral diseases and their management through biotechnological interventions" by Dr. Basava Prabhu L Patil. He elaborated on various plant viral diseases, their causative agents, development of disease resistant varieties. Session 2 was engaged by Dr. Nivedan on "Areca tea value added products from arecanut". Dr. Valarmathy K handled session 3 for the day on "Biotech entrepreneurship ideas and opportunities". Dr. Valarmathy talked us through various products developed and those which have successfully been commercialized.





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**Day 6: 15<sup>th</sup> March 2021**

The sixth day started with a talk on "Hidden healthcare informatics data exploration as an entrepreneurial niche" by Dr. Vidya Niranjana. Dr. Vidya pointed out the importance of data analytics in healthcare, elements and attributes pertaining to data analytics as well as different steps of data analytical processes. Session 2 was on "Art of writing research proposal for successful funding" by Dr. Preetha Sharan. Dr. Preetha elaborated on various terminologies like H index, i-10 index and ORCID ID along with their importance and relevance in publishing research articles. Session 3 was handled by Dr. B K Manjunath on "Technologies and funding opportunities". Dr. Manjunath spoke on various technology transfer opportunities in the field of biotechnology, production and commercialization of biopesticides and start up schemes of Govt. of India.

**Day 7: 16<sup>th</sup> March 2021**

The seventh day of the program started with a talk on "Isolation and characterization of anti-cancer compounds from natural sources" by Dr. Shama Prasada K. Sir discussed different cancer treatment options and different types of assays for diagnosing cancer cells. Session 2 was engaged by Dr. A Srinivas Rao on "Pesticides and their metabolites analysis: Environmental and biomarkers of human exposures and health issues". The next session was on the topic "Biotech patent case laws defining patentability criterion in different jurisdictions" by Smt. Ekta Prasad, Patent Agent, KSCST.

**Day 8: 17<sup>th</sup> March 2021**

The eighth day of the program commenced with the technical talk by Dr. Sarasija, Tutor, WIPO & Advisory member, KSCST, who gave details on the topic "Hands on training - Prior art search related to Biotechnology Inventions". The session was then taken over by Dr. C.R. Patil, Professor, University of

Agricultural Sciences, Karnataka, who emphasized on the types of microbial inoculants, current status, future prospects and quality standards.



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**Day 9: 18<sup>th</sup> March 2021**

The ninth day of the program began with the lecture by Ms. Ankita Puranik, Innovation and Ecosystem Development Officer, BBC, on the topic "Start up ecosystem and funding opportunities". The second session was engaged by Dr. Meher Prakash, Co-founder, VNIR Biotechnologies Pvt Ltd, who discussed about "My journey, back and forth between academics and startup". The last session of the day was about the overview of government and nongovernment funding agencies for research and development by Dr. B. K. Manjunatha.

**Day 10: 19<sup>th</sup> March 2021**

The tenth day of the program started with technical talk about the opportunities for starting a science-driven business by Dr. Raghuveer Ramachandra, Founder and Director, GaloreTx Pharmaceuticals Pvt Ltd. The last session was about 3D Bioprinting in India and about how it is shaping up healthcare and medicine by Mr. Piyush Padmanaban, Co-founder, Next Big Innovation labs, Bangalore.

**Day 11: 20<sup>th</sup> March 2021**

The eleventh day of the program started with informative lecture given by Dr. Arvind Vishwanath, CEO, Pitch Scientific, Bangalore, who emphasized on patent searching and analysis with reasons, data sources and methods. The second session was about newer avenues and skill sets for biotech entrepreneurship given by Dr. Pratima Kanderwal, Lead Facilitator. The last session of the technical talk was by Dr. Raju, Professor and Head of Department of Automobile Engineering, TOCE, on the topic "Biodiesel- a potent option for Entrepreneurship".

**Day 12: 22<sup>nd</sup> March 2021**

The last day of the FDP started with technical talk delivered by Dr. Nagendra, Professor & Head of the Department of Biotechnology, Sir M Visvesvaraya Institute of Technology, Bangalore, on the topic "Role of Educational Institutions in Promoting Innovations and Entrepreneurship development". The second session was on the topic "IOT in Agro production, Processing and retailing" by Dr. Manpreet Singh Manna.



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**THE DEPARTMENT OF BIOTECHNOLOGY**

*Cordially Invites You to the Valedictory Ceremony of Phase 2 AICTE  
Sponsored Two Weeks Faculty Development Program (8<sup>th</sup> to 20<sup>th</sup> march 2021)*

*On*

*"Bio-Innovation, Patenting and Entrepreneurship  
Opportunities in Biotechnology for Sustainable Environment"*

*On*

*22<sup>nd</sup> march at 11:30 am*

*Click on the link to join- <https://bit.ly/3qS3OUp>*

*Presided by*



**Shri.S.N.V.L.Narasimha Raju,**  
Chairman,  
The Oxford Educational Institutions.

*Chief Guest*



**Dr.Manpreeth Singh Manna,**  
Former Director, AICTE, Associate Professor,  
Dept. of Electrical & Instrumentation Engg,  
SLIET, Longowal, Punjab.

*Guest of Honor*



**Dr.H.G.Nagendra,**  
Professor & Head,  
Department of Biotechnology,  
Sir M Visvesvaraya Institute of Technology,  
Bangalore.

*Address by*



**Dr.Amarnath K,**  
Director,  
The Oxford Educational Institutions,  
Bangalore.

*Convenor*



**Dr.B.K.Manjunath,**  
Dean Research,  
Professor & Head,  
Department of Biotechnology,  
The Oxford College of Engineering,  
Bangalore.

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The Valedictory session was presided by Shri.S.N.V.L Narasimha Raju ,Chairman ,The Oxford Educational Institutions,and the Chief guest was Dr.Manpreet Singh Manna, Former Director,AICTE,Associate Professor,Department of Electrical and Instrumentation Engg,SLIET, Longowal, Punjab and Guest of Honor was Dr.H.G.Nagendra,Professor&Head,Department of Biotechnology ,Sir M.Visveswaraya Institute of Technology.Dr.B.K.Mnjaunath gave a brief presentation about the details of technical talks happened during the 14 days FDP and the participants were overwhelmed with the FDP and they expressed their happiness during the feedback session and the 14 day event was ended with the vote of thanks by Dr.K.Valarmathy,Associate Professor, Department of Biotechnology, The Oxford College of Engineering. This led to the end of the series of lectures in the two weeks programme. The program on the whole was very informative.



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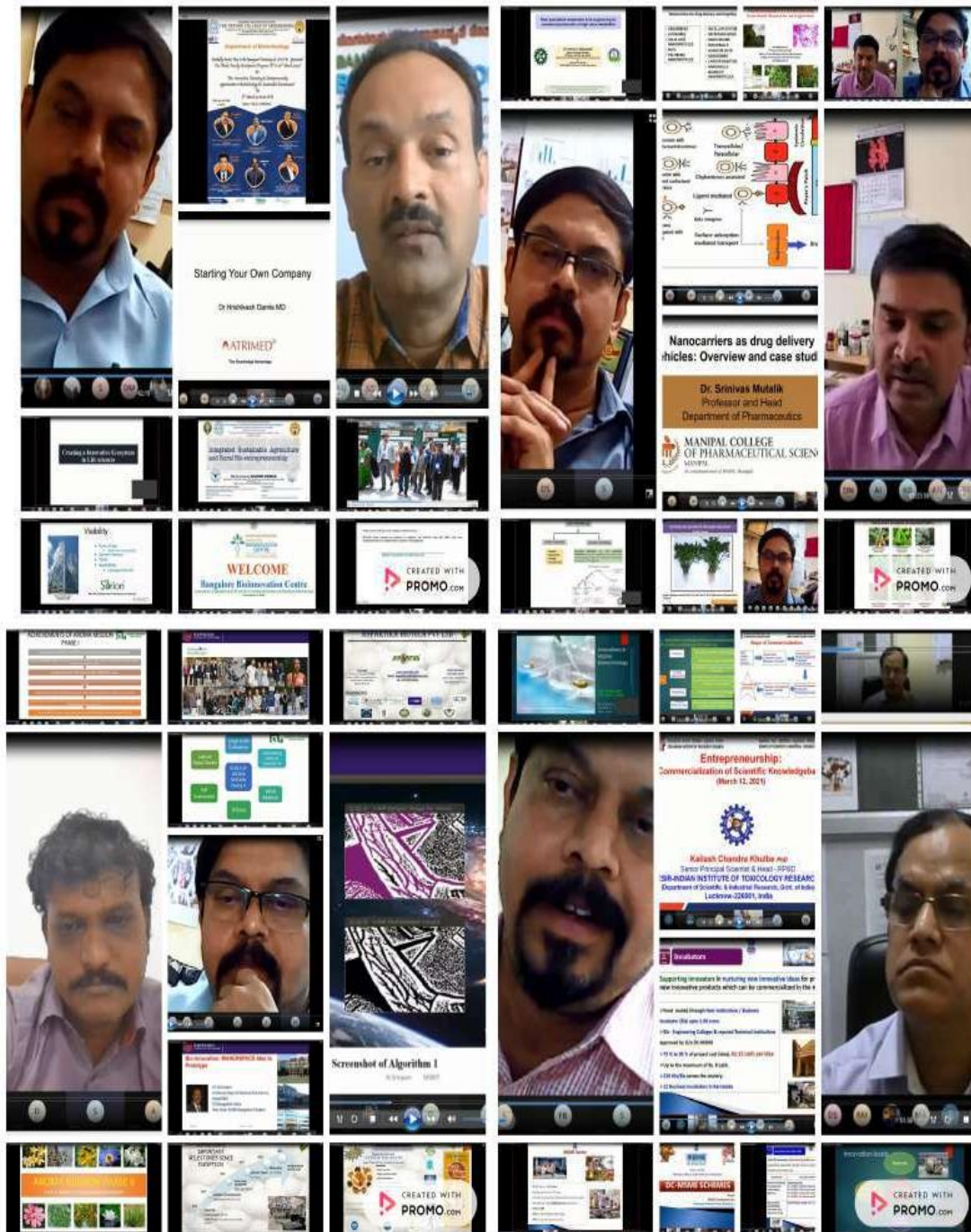
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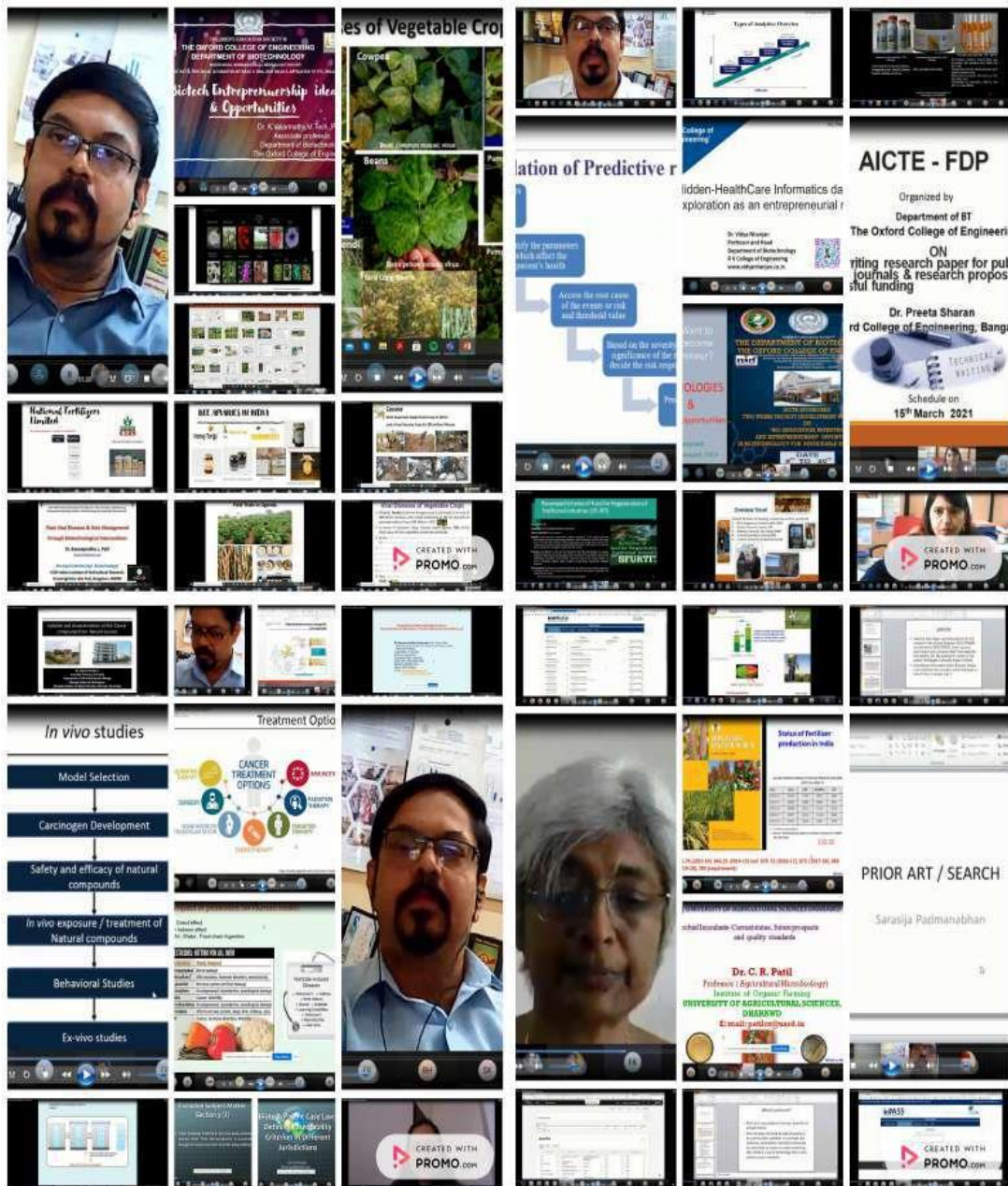
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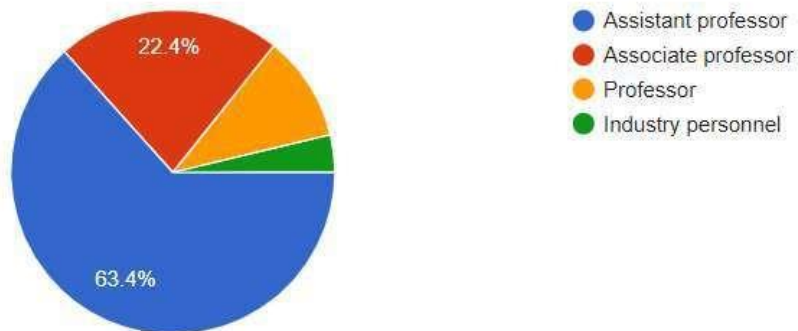
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**Details of Registration**

**Designation**

161 responses





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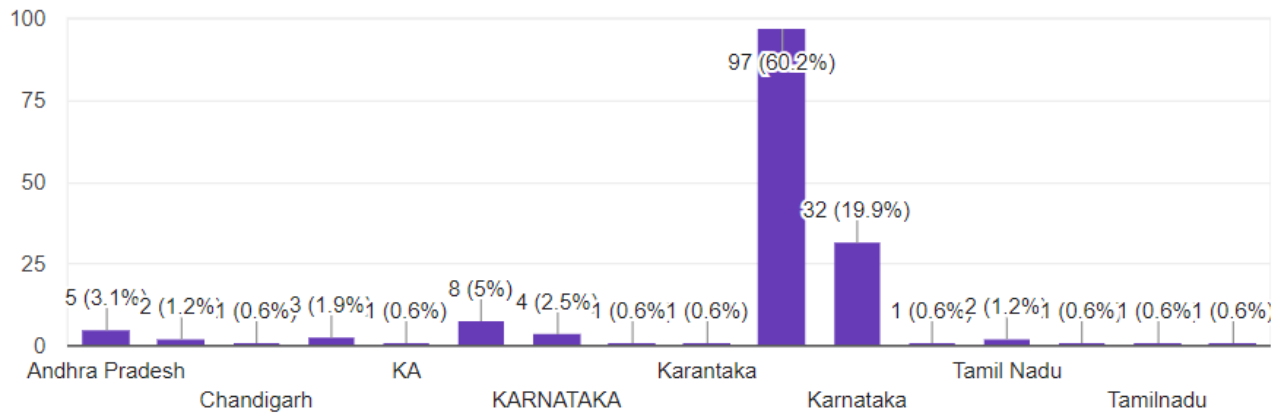
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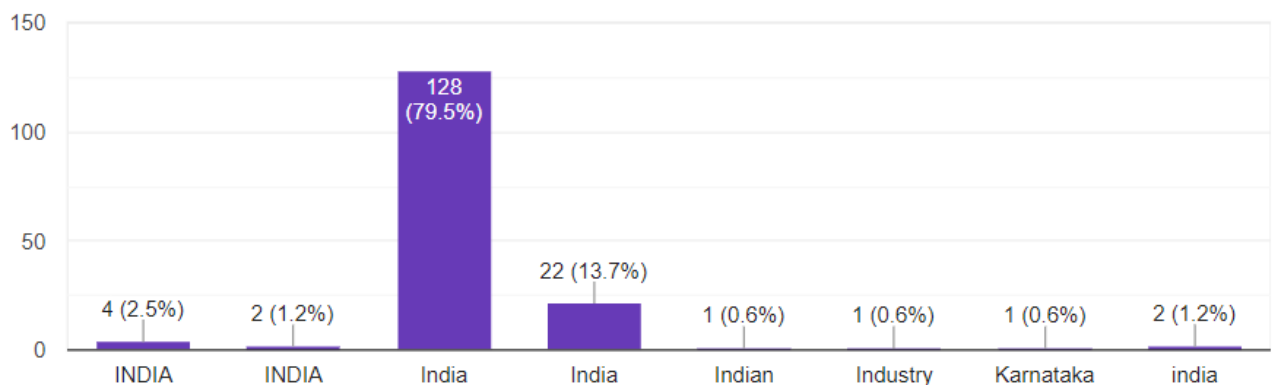
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161 responses



### Country

161 responses





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04/02 / 2021 10:53 : 56	dr.valarmathyk@gmail.com	Dr.K.Valarmathy	9739672705	dr.valarmathyk@gmail.com	Biotechnology	Associate professor	The Oxford College of Engineering
05/02 / 2021 14:09 : 21	drsubaraja89@gmail.com	Dr. M. SUBARAJA	9047408017	drsubaraja89@gmail.com	Biochemistry	Assistant professor	Vivekanandha College of Arts and Science for Women (Autonomous)
05/02 / 2021 14:14 : 13	nidhi.nath76@gmail.com	Ms Nidhi Nath	+918709021723	nidhi.nath76@gmail.com	Life Science	Industry personnel	Central University of Jharkhand
05/02 / 2021 14:14 : 45	gomathi83ms@gmail.com	Dr. M. GOMATHI	9159891623	gomathi83ms@gmail.com	Biotechnology	Assistant professor	Marudhar Kesari Jain College for Women
05/02 / 2021 14:17 :	sentilkr1993@gmail.com	Sentiyanger Longkumer	9378167057	sentilkr1993@gmail.com	Zoology Department	Industry personnel	Nagaland University, Lumami





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05/02/2021 14:18:23	sudhir75.k@gmail.com	Mr.K.SUDHEER	9198857072602	sudhir75.k@gmail.com	BOTANY	Assistant professor	NTR GDC(W),MAHABUBNAGAR, TELANGANA STATE
05/02/2021 14:39:39	ibrahim.labadi@yahoo.com	Ibrahim Al-Labadi	0036706577948	ibrahim.labadi@yahoo.com	Environment	Industry personnel	Szent Istvan University
05/02/2021 14:41:37	praveenramanujam@gmail.com	Prof. R. Praveen Kumar	9842073165	praveenramanujam@gmail.com	Biotechnology	Associate professor	Arunai Engineering College
05/02/2021 14:42:26	arivoli82@gmail.com	Dr. A. ARIVOLI	9894289210	arivoli82@gmail.com	Environmental Science	Assistant professor	Government Art's College
05/02/2021 14:43:59	spmicro1747@rediffmail.com	Vijay S Wadhai	9422137698	spmicro1747@rediffmail.com	Microbiology	Professor	Sardar Patel Mahavidyalaya Chandrapur
05/02/2021 14:44:41	mano071989@gmail.com	Dr. P. MANOGAR	9894703892	mano071989@gmail.com	PG and Research Department of Botany	Assistant professor	Nehru Memorial College (Autonomous) Puthanampatti, Tiruchirappalli
05/02/2021 14:52:15	anisurehman.2011@rediffmail.com	Dr. MOHD ANIS GANAIE	9797748261	anisurehman.2011@rediffmail.com	Zoology	Assistant professor	Higher education Department, Jammu and Kashmir
05/02/2021 14:56:14	eswarseta@gmail.com	Eswara Rao Tatta	9550090133	eswarseta@gmail.com	Department of genomic science	Industry personnel	Central University of Kerala
05/02/2021	miniaayushi@gmail.co	MS.	9720952	miniaayushi@gmail.co	Molecular	Industry	Dr. Sachin



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2021 14:5 7: 15	m		868	m	Biology	try pers o nnel	Saxena memorial Diagnostic Centre
05/0 2/ 2021 15:1 2: 18	tishaliza@gmail.com	Mrs.Tisha Liza Tomy	953972 2 214	tishaliza@gmail.com	Biotechno l ogy	Assis tant profe ssor	St.Mary's College, Thrissur
05/0 2/ 2021 15:1 4: 11	shovanbiswas231@g mail.com	Mr.SHOVAN BISWAS	838881 2 463	shovanbiswas231@g mail.com	BOTANY	Indus try pers o nnel	VISVA-BHARATI UNIVERSITY
05/0 2/ 2021 15:1 5: 56	hariswethah@gmail. c om	HARISWETH A. S	638142 2 286	hariswethah@gmail. c om	Biochemis t ry	Indus try pers o nnel	Vivekananda college of arts and science for women Autonomous
05/0 2/ 2021 15:1 7: 33	saranyaar@gmail.co m	Mrs.A.R.SAR ANYADEVI	978626 8 455	saranyaar@gmail.co m	BIOCHEMI STRY	Assis tant profe ssor	SOURASHTRA COLLEGE, MADURAI
05/0 2/ 2021 15:1 8: 03	raghavanmku@gmai l. com	Dr. Raghavan Kuppu	978912 1 676	raghavanmku@gmai l. com	Biochemis t ry	Assis tant profe ssor	Sourashtra College
05/0 2/ il.	sanjuverma06@gma il.	Dr Sanjeev	999782 7	sanjuverma06@gma il.	Microbiol o	Assis	VCSG UUHF



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05/0 2/ 2021 15:2 4: 38	rashms@gmail.com	Dr. Rashmi S	988661 6 004	rashms@gmail.com	PG  Departme n t of Botany	Assis  tant profe ssor	JSS College of  Arts, Commerce and Science
05/0 2/ 2021 15:2 4: 44	vinogenes@gmail.co m	Dr. S. Vinoth	989427 7 726	vinogenes@gmail.co m	Biotechno l ogy	Assis  tant profe ssor	Sona College of  Arts and Science
05/0 2/ 2021 16:0 2: 22	malarswamy82@gm ai l.com	MS.R.MALAR  KODI	957832 9 798	malarswamy82@gm ai l.com	Biochemis t ry	Assis  tant profe ssor	Marudharkesari  jain college for women  vaniyambadi
05/0 2/ 2021 16:1 8: 44	achankunjujackson @g mail.com	Dr. JACKSON  ACHANKUNJ U	+968923  37103	achankunjujackson @g mail.com	College of  Applied and Health Sciences, A'Sharqiya h University	Assis  tant profe ssor	ASU
05/0 2/ 2021 16:2 1: 24	thiruchelvi.se@velsu ni v.ac.in	R  THIRUCHELV I	755005 7 190	thiruchelvi.se@velsu ni v.ac.in	BioEngine  ering, B. Tech  Biotechno l ogy	Assis  tant profe ssor	Vels Institute of  Science Technology and  Advanced Studies
05/0 2/ 2021 16:2 6: 19	manishky77794@g ma il.com	MANISH  KUMAR YADAV	941593 6 356	manishky77794@g ma il.com	BOTANY	Indus  try pers o nnel	VBS  PURVANCHAL UNIVERSITY  JAUNPUR
05/0 2/ 2021 16:3 3: 58	shou.hebal@gmail.c o m	Dr.  Shouriehebal  Soni	976990 1 864	shou.hebal@gmail.c o m	Zoology	Assis  tant profe ssor	Bhavan's  College, Andheri West, Mumbai
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05/02/2021 17:10:04	jeevanaakashp@gmail.com	M.HEMA MANI	9042918997	jeevanaakashp@gmail.com	BIOCHEMISTRY	Assisstant professor	SOURASHTRA COLLEGE
05/02/2021 17:16:48	hodb.techbiotech@velsuniv.ac.in	Dr.Brindha Devi P	9488012440	hodb.techbiotech@velsuniv.ac.in	Bioengineering	Associate professor	Vels Institute of science technology and advanced studies
05/02/2021 18:04:15	anjanaantonybio2020@smctsr.ac.in	Ms.Anjana Antony	8304012243	anjanaantonybio2020@smctsr.ac.in	Bsc.biotechnology	Assisstant professor	St.Mary's
05/02/2021 18:16:56	prathimar591@gmail.com	Prathima.R	8277540375	prathimar591@gmail.com	Microbiology	Indus try personnel	JSS Academy of Higher Education and Research
05/02/2021 19:00:24	gautam1436@gmail.com	Dr. Surendra Gautam	9893084391	gautam1436@gmail.com	Life Sciences	Assisstant professor	Faculty of Science, Shri Rawatpura Sarkar University
05/02/2021	dr.mohanindia@gmail.ail.	Dr.R.MOHAN	9486853	dr.mohanindia@gmail.ail.	Business	Assis	Excel College for



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05/02/ 2021 22:22: 11	selvincivil1992@gm ail .com	SELVIN M	994427 4 617	selvincivil1992@gm ail .com	civil	Indus try pers o nnel	SSS Construction
05/02/ 2021 22:29: 50	hasan.zia7@gmail.c o m	Mr. Ziaul Hasan	971849 6 463	hasan.zia7@gmail.c o m	Bioscience s	Assis tant profe ssor	Jamia Millia Islamia
06/02/ 2021 02:38: 56	hadifarhan111@gm ail. com	Mr.	600566 4 008	hadifarhan111@gm ail. com	Botany	Indus try pers o nnel	University of Kashmir, Srinagar
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06/02/ 2021 08:45: 52	ky9256699@gmail.c o m	Ms Krishna Yadav	955463 5 582	ky9256699@gmail.c o m	Zoology	Indus try pers o nnel	Vbspu
06/02/ 2021 13:55: 21	yogan.logesh@gmail .com	LOGESH S	801214 7 639	yogan.logesh@gmail .com	Departme nt of Biotechno logy and Bioinform atics	Indus try pers o nnel	JSS Academy of Higher Education and Research
06/02/ 2021 14:52: 46	shabeer.sanbio@gm ail.com	Dr. N. SHABEER AHMED	790486 7 874	shabeer.sanbio@gm ail.com	Biotechno logy	Assis tant profe ssor	Islamiah college (Autonomous)
06/02/ 2021 15:57:	abhishekgupta2030 @ gmail.com	Dr. Abhishek Gupta	941164 3 249	abhishekgupta2030 @ gmail.com	Departme nt of Zoology,	Assis tant profe	Chaudhary Charan Singh University,



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06/02/2021 16:30:32	sowmya.se@velsuni v. ac.in	Ms. H.Sowmya	994173 7 567	sowmya.se@velsuni v. ac.in	Biotechno l ogy	Assis tant profe ssor	Vels Institute of Science Technology and Advanced Studies
06/02/2021 17:14:05	ms.microhoney@gm ai l.com	Dr.R.Mythili	938439 6 855	ms.microhoney@gm ai l.com	Microbiol o gy	Assis tant profe ssor	K.S.Rangasamy College of Arts and Science
06/02/2021 18:11:27	murkutesupriya95@ g mail.com	Ms.Supriya devanand murkute	750738 6 220	murkutesupriya95@ g mail.com	Departme n t of microbiol o gy	Assis tant profe ssor	N.B.Mehta science College, bordi
06/02/2021 18:25:57	biogoms@gmail.co m	Mr. G. GOMATHI SANKAR	999428 1 438	biogoms@gmail.co m	Biotechno l ogy	Assis tant profe ssor	Jeppiaar Engineering College
06/02/2021 18:28:21	rajgobi@gmail.com	Dr. KUPPANNAN G	770800 8 619	rajgobi@gmail.com	Microbiol o gy	Assis tant profe ssor	VIVEKANANDH A COLLEGE OF ARTS AND SCIENCES FOR WOMEN
06/02/2021	Shivangiverma401@ g	Ms SHIVANGI	913560 7	Shivangiverma401@ g	Biochemis t	Indus	PATNA





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06/0 2/ 2021 18:4 2: 03	josephcdaniel@yahoo.com	Dr. S. Joseph  Christian Daniel	944336 1 929	josephcdaniel@yahoo.com	Microbiol o gy	Asso  ciate profe  ssor	St. Joseph's  College of Arts and Science  Autonomous
06/0 2/ 2021 18:4 4: 01	dipalids.bo@gmail.com	Ms. Dipali Dilip Shelke	899918 6 211	dipalids.bo@gmail.com	Biophysics	Indus  try pers o nnel	Vakhard
06/0 2/ 2021 18:4 5: 59	biorahul4@gmail.com	Mr. RAHUL  KHUSHALRA  O DHABALE	942066 1 432	biorahul4@gmail.com	Departme n t of Botany	Assis  tant  profe  ssor	Bhagwantrao  Arts & Science College, Etapalli
06/0 2/ 2021 18:5 7: 21	ivoromauld.se@vels niv.ac.in	Mr.S.Ivo  Romauld	950006 8 857	ivoromauld.se@vels niv.ac.in	Bioengine e ring	Assis  tant profe  ssor	VELS  INSTITUTE OF SCIENCE  TECHNOLOGY AND ADVANCED STUDIES
06/0 2/ 2021 19:0 3: 42	rajnishsingh846@gmail.com	Mr RAJNISH  SINGH	842939 8 977	rajnishsingh846@gmail.com	Biotechno l ogy	Indus  try pers o nnel	GCRG GROUP  OF INSTITUTIONS,  LUCKNOW
06/0 2/ 2021 19:0 8: 00	asem_micro1980@hotmail.com	Mr. Assem  Antar Abdelalem	+201068  983906	asem_micro1980@hotmail.com	Microbiol o gy	Indus  try pers o nnel	Misr university  for Science and technology
06/0 2/ 2021 19:1 8: 43	dinesh.kumar@shobhituniversity.ac.in	Dr. Dinesh  kumar	954078 4 161	dinesh.kumar@shobhituniversity.ac.in	BIOTECH  NOLOGY	Assis  tant profe  ssor	Shobhit deemed university
06/0 2/ 2021 19:2 5:	swethauk_78@yahoo.co.in	Dr. Swetha  Sunkar	994048 3 184	swethauk_78@yahoo.co.in	Bioinform at ics	Asso  ciate profe	Sathyabama  institute of science and



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06/02/2021 19:44:23	varalakshmi@stmaryscollege.in	Ms. V. Varalakshmi	6305638717	varalakshmi@stmaryscollege.in	Biotechnology	Assistant professor	St. Mary's College
06/02/2021 20:08:55	saraswathy76@yahoo.co.in	Dr. Saraswathy Nagendran	9820391308	saraswathy76@yahoo.co.in	Botany	Associate professor	Mithibai College of Arts Chauhan Institute Of Science And Amrutben Jivanlal College Of Commerce And Economics, Mumbai
06/02/2021 20:47:29	prasanna.r.kovath@mctsr.ac.in	Mrs. Prasanna R Kovath	9605130199	prasanna.r.kovath@mctsr.ac.in	Biotechnology	Assistant professor	St. Mary's college Thrissur Kerala India
06/02/2021 21:01:46	suvojitghosh347@gmail.com	Mr. Suvojit Ghosh	9051571791	suvojitghosh347@gmail.com	Botany	Industry personnel	Visva Bharati
06/02/2021	abhithabhi12196@gmail.com	ABHISHEK KUMAR	9805933828	Abhithabhi12196@gmail.com	Biotechnology	Professor	Himachal Pradesh



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06/02/2021 22:06:41	mayurchandranshu@gmail.com	Mr. Mayur Chandranshu Mishra	8171980472	mayurchandranshu@gmail.com	Biological Sciences	Assistant professor	Mahatma Gandhi Chitrakoot Gramoday University
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07/02/2021 00:24:37	attahalfa@gmail.com	Mr. Abdullahi Attah Alfa	08060222458	attahalfa@gmail.com	Anatomy	Industry personnel	Kogi State University, Anyigba
07/02/2021 03:26:49	masilamani.biotech@sathyabama.ac.in	Dr. M.Masilamani Selvam	8939142678	masilamani.biotech@sathyabama.ac.in	Biotechnology	Associate professor	Sathyabama University
07/02/2021 03:56:37	b.btnathan@gmail.com	Dr. Bharathi Ravikrishnan	9380284500	b.btnathan@gmail.com	Biotechnology	Assistant professor	Guru Nanak College
07/02/2021 07:05:57	biologiask@gmail.com	Dr. S. Karthick Raja Namasivayam	9842441198	biologiask@gmail.com	Biotechnology	Professor	Sathyabama Institute of Science and Technology
07/02/2021 07:50:38	sridevi@vmkvec.edu.in	Dr.M.Sridevi	9942364284	sridevi@vmkvec.edu.in	Biotechnology	Professor	Vinayaka Mission's Kirupananda Variyar Engineering





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07/02/2021 08:25:36	drkrishnakumar_phd@yahoo.com	Dr.S.Krishnakumar	9444728401	drkrishnakumar_phd@yahoo.com	Biomedcal	Asso ciate profe ssor	Sathyabama Institute of Science and Technology
07/02/2021 08:28:17	drsudhakar35@gmail.com	Sathyabama institute of science and technology	9840401909	drsudhakar35@gmail.com	Biomedica l	Assis tant profe ssor	Sathyabama institute of science and technology
07/02/2021 08:53:24	jahangeerevs@gmail.com	Mr. JAHANGEER MOHD RESHI	8825031514	jahangeerevs@gmail.com	Environm e ntal science	Assis tant profe ssor	Govt Degree College, Pampore, Kashmir, India
07/02/2021 11:08:42	suresh.unigoa@gmail.com	Dr	7676701812	suresh.unigoa@gmail.com	Bacteriolo g y	Assis tant profe ssor	ICAR-NIVEDI
07/02/2021 11:28:52	parthabiology2018@rediffmail.com	Dr Partha Ghosh	9609912716	parthabiology2018@rediffmail.com	Anthropol o gy and Human Genetics	Indus try pers o nnel	Compudemy
07/02/2021 23:30:39	ashainb2017@gmail.com	Ms. ASHA INBANATHAN	+971565801143	ashainb2017@gmail.com	School of  Life Sciences	Indus try pers o nnel	Manipal  Academy of Higher Education, Dubai



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08/02/2021 10:45:07	psakthiselvan.se@velsuniv.ac.in	Dr Sakthiselvan Punniavan	9884013380	psakthiselvan.se@velsuniv.ac.in	Bio-Engineering	Assistant professor	Vels Institute of Science Technology and Advanced Studies (VISTAS)
08/02/2021 10:48:43	meenambiga.se@velsuniv.ac.in	Dr SS Meenambiga	9003461468	meenambiga.se@velsuniv.ac.in	Vels Institute of Science Technology and Advanced Studies	Assistant professor	Vels Institute of Science Technology and Advanced Studies
08/02/2021 17:22:58	chemistshivam007@gmail.com	MR. SHIVAM KASHYAP	8191942862	Chemistshivam007@gmail.com	CHEMISTRY	Industry personnel	D. N. COLLEGE, MEERUT
08/02/2021 17:27:03	anujisaini5413@gmail.com	Anuj Saini	8193004320	anujisaini5413@gmail.com	Chemistry	Industry personnel	D N COLLEGE
08/02/2021 17:29:33	akshduttparashar@gmail.com	Aksh Dutt Parashar	8171244709	akshduttparashar@gmail.com	Chemistry	Industry personnel	D N college Meerut
08/02/2021 17:31:01	kavyasathyanathan@gmail.com	KAVIA V	7510449776	kavyasathyanathan@gmail.com	Biochemistry	Industry personnel	kvasu
08/02/2021 19:13:21	lbnalanbar664@gmail.com	M.Sc Taha Yaseen Salih Alqaisy	0	lbnalanbar664@gmail.com	Department of physics	Assistant professor	University of Anbar/college of Education
08/02/2021	riyasingh2217@gmail.com	Miss Riya	9675340353	riyasingh2217@gmail.com	Chemistry	Professor	D.N. College meerut



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08/02/2021 20:24:04	gowthamrkumar750@gmail.com	Mr. Gowtham.R	9487901870	gowthamrkumar750@gmail.com	Biotechnology	Assistant professor	Dr. NGP College of arts and sciences autonomous
08/02/2021 20:46:42	sangeeta.thakkar9@gmail.com	Ms	9925308842	Sangeeta.thakkar9@gmail.com	Life science	Industry personnel	Tvs
08/02/2021 20:46:59	artheerajendran@gmail.com	Dr. Arthee R	9626662444	artheerajendran@gmail.com	Department of Crop Production and PHT	Industry personnel	ICAR National Research Centre for Banana
08/02/2021 21:24:26	pummyy995@gmail.com	Usama Ansari	7060744759	pummyy995@gmail.com	Chemistry	Industry personnel	D N Degree College, Meerut
08/02/2021 22:41:56	narayanadeepmaurya@gmail.com	DEEP NARAYAN MAURYA	9654178896	narayanadeepmaurya@gmail.com	Chemistry	Assistant professor	DN college meerut
08/02/2021 23:35:06	agarwalravi.ibt13@gmail.com	Dr.Ravindra kumar Agarwal	9998405838	agarwalravi.ibt13@gmail.com	Center for Health and Applied Sciences	Assistant professor	Ganpat University





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09/02/2021 12:35:40	drishtigandhi63@gmail.com	DRISHTI SATISH GANDHI	8850547021	drishtigandhi63@gmail.com	MICROBIOLOGY	Associate Professor	Guru Nanak Khalsa College
09/02/2021 21:12:33	anbu_nanthu@rediffmail.com	Dr. R. ANBURAJ	9894262665	anbu_nanthu@rediffmail.com	Microbiology	Associate Professor	Vivekananda college of Arts and Sciences for Women
09/02/2021 21:21:58	sr.paranthaman@gmail.com	DR.S.R.PARANTHAMAN	9790284763	sr.paranthaman@gmail.com	Microbiology	Assistant Professor	Vivekanandha college of Arts and Sciences for Women(Autonomous)
10/02/2021 00:38:04	shobhitsaini1998@gmail.com	Shobhit saini	7017871489	Shobhitsaini1998@gmail.com	Chemistry	Industry - personnel	D. N. College
02/03/2021 12:21:36	sridevi.indira@gmail.com	Dr. V. Sridevi	9494713315	sridevi.indira@gmail.com	Biological sciences	Assistant Professor	SREE VIDYANIKETHA N DEGREE COLLEGE
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02/0 3/ 2021 12:2 3: 49	srinivasgudibanda@ g mail.com	Dr.P.L.SRINIV ASA MURTHY	988626 5 443	srinivasgudibanda@ g mail.com	Mechanic al	Profe ssor	B.N.M.Institute of Technology
02/0 3/ 2021 12:2 9: 30	aghsal5678@gmail. c om	Anup Ghosal	903888 2 695	aghsal5678@gmail. c om	Food and Nutrition	Profe ssor	Prabhu Jagatbandhu College
02/0 3/ 2021 12:3 1: 04	biologiask@gmail.co m	Dr.S.Karthick Raja Namasivaym	984244 1 198	biologiask@gmail.co m	Biotechno l ogy	Profe ssor	Sathyabama Institute of science and technology
02/0 3/ 2021 12:3 2: 06	aneeshsharma86@g mail.com	Mr. Aneesh kumar	988773 4 770	aneeshsharma86@g mail.com	Zoology	Assis tant profe ssor	Sri Sai University Palampur Himachal Pradesh
02/0 3/ 2021 12:3 6: 09	180477@sdmcujire.i n	RACHANA	910863 0 638	180477@sdmcujire.i n	Botany	Asso ciate profe ssor	SDM COLLEGE,(AUT ONOMOUS), UJIRE.
02/0 3/ 2021 12:3 6:	rrushasri@gmail.co m	Mrs R.USHASRI	988453 6 418	rushasri@gmail.com	MICROBIO LOGY	Assis tant profe	J.B.A.S college for women



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02/03/2021 12:39:03	kmramya6@gmail.com	Prof. RAMYA K M	94822050216	kmramya6@gmail.com	Computer Science and Engineering	Assistant professor	HKBK College of Engineering
02/03/2021 12:41:03	balu10.honey@gmail.com	Dr. M. V Balasubramanyam	9844360196	balu10.honey@gmail.com	Zoology	Assistant professor	GFGC and PG centre, Chintamani - 563125
02/03/2021 12:51:14	ashainb2017@gmail.com	Ms. ASHA INBANATHAN	+971565801143	ashainb2017@gmail.com	School of Life Sciences	Industry personnel	Manipal Academy of Higher Education, Dubai Campus
02/03/2021 12:58:28	drtamizhselvang@nitte.edu.in	Dr. Tamizh Selvan G	9629876235	drtamizhselvang@nitte.edu.in	Central Research Laboratory	Assistant professor	K.S. Hegde Medical Academy, Nitte (Deemed to be University)
02/03/2021 13:49:39	halimajenish@gmail.com	Mrs. Halima R	8197218767	halimajenish@gmail.com	Biotechnology	Assistant professor	Sir M Visvesvaraya Institute of Technology
02/03/2021 13:51:41	drkrishnakumar_phd@yahoo.com	Dr. S. KRISHNAKUMAR	9444728401	drkrishnakumar_phd@yahoo.com	Biomedical	Associate professor	Sathyabama Institute of Science and Technology
02/03/2021 13:52:25	ms.microhoney@gmail.com	Dr.R.Mythili	9384396855	ms.microhoney@gmail.com	Microbiology	Assistant professor	K.S.Rangasamy College of Arts and Science College
02/03/2021 13:55:24	nivedita_biotech@smvit.edu	A.NIVEDITHA	903501919	nivedita_biotech@smvit.edu	BIOTECHNOLOGY ENGINEERING	Associate professor	SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY,





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02/03/2021 14:04:58	vishakh.kedilaya@nitte.edu.in	Dr Vishakh R	9449790707	vishakh.kedilaya@nitte.edu.in	Central Research Laboratory	Assistant professor	KS HEGDE MEDICAL ACADEMY
02/03/2021 14:24:05	kavyamv25@gmail.com	Kavya M V	7899351862	kavyamv25@gmail.com	Biotechnology	Assistant professor	Sapthagiri College Of Engineering
02/03/2021 14:27:21	shobhag@sapthagiri.edu.in	Dr Shobha G	9964591024	shobhag@sapthagiri.edu.in	Biotechnology	Assistant professor	Sapthagiri College of Engineering
02/03/2021 14:32:32	drsudhakar35@gmail.com	T SUDHAKAR	9840401909	drsudhakar35@gmail.com	biomedical	Assistant professor	Sathyabama Institute of Science and Technology
02/03/2021 14:35:15	ullalharshini@nitte.edu.in	Dr. ULLAL HARSHINI DEVI	9741508056	ullalharshini@nitte.edu.in	Biotechnology	Assistant professor	NMAMIT
02/03/2021 14:35:59	murkutesupriya95@gmail.com	Ms.supriya devanand murkute	7507386220	murkutesupriya95@gmail.com	Microbiology	Assistant professor	N.B.MEHTA SCIENCE COLLEGE, BORDI
02/03/2021	preetham0291@gmail	preetham	8147247	preetham0291@gmail	Information	Assistant	Bapuji institute of



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02/0 3/ 2021 14:4 6: 05	gm.dhananjayabiet @y ahoo.com	DHANANJAY A G M	797566 1 267	gm.dhananjayabiet @y ahoo.com	informatio n science and  engineeri n g	Assis tant profe ssor	BIET  DAVANGERE
02/0 3/ 2021 14:5 2: 59	drpadma28@gmail.c o m	Dr. Padmaja. s	974277 7 234	drpadma28@gmail.c o m	Prosthodo ntics	Asso ciate profe ssor	Oxford dental college
02/0 3/ 2021  16:0 7: 01	nagamadhu74@gma il. com	Dr. Nagamadhu M	961133 8 626	nagamadhu74@gma il. com	Departme n t of  Mechanic al Engineeri n g	Assis tant profe ssor	Acharya Institute of Technology
02/0 3/ 2021 16:1 8: 08	manoharswati0@gm ai l.com	Dr Swati Manohar	810568 3 222	manoharswati0@gm ai l.com	Pedodonti c s and preventiv e dentistry	Assis tant profe ssor	The Oxford dental college and hospital
02/0 3/ 2021 16:2 1: 53	drishtigandhi63@gm ai l.com	Drishti Satish Gandhi	885054 7 021	drishtigandhi63@gm ai l.com	Microbiol o gy	Indus try pers o nnel	Guru Nanak Khalsa College
02/0 3/ 2021 16:5 9: 31	svravikanth@gmail.c o m	Dr. S.V. Ravikanth	949257 9 009	svravikanth@gmail.c o m	Biological  Sciences	Assis tant profe ssor	Sree  Vidyanikethan Degree college
02/0 3/ 2021 17:0 1: 19	attahalfa@gmail.co m	Mr. Abdullahi Attah Alfa	0806022  2458	attahalfa@gmailm	Anatomy	Indus try pers o nnel	Kogi State University, Anyigba
02/0 3/ 2021 19:0	lbnalanbar664@gma il. com	M.Sc Taha Yaseen Salih Alqaisy	00964	lbnalanbar664@gma il. com	Departme n t of physics	Assis tant profe	University of Anbar/college of Education for



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2: 43						ssor	Pure Sciences
02/03/2021 20:49:39	sarakumar1415@gmail.com	Ms.S.SARANYA	8610699600	sarakumar1415@gmail.com	MSc Microbiology	Indus - try personnel	
02/03/2021 22:17:19	josephcdaniel@yahoo.com	Dr. S. Joseph Christian Daniel	9443361929	josephcdaniel@yahoo.com	Microbiology	Asso ciate professor	St. Joseph's College of Arts and Science (Autonomous),
03/03/2021 06:59:56	suresh.unigoa@gmail.com	Dr SureshKumar	7676701812	suresh.unigoa@gmail.com	Bacteriology II	Assis tant professor	ICAR-NIVEDI
03/03/2021 07:18:32	swethauk_78@yahoo.co.in	Dr. Swetha Sunkar	9940483184	swethauk_78@yahoo.co.in	Bioinformatics	Asso ciate professor	Sathyabama institute of science and technology
03/03/2021 13:34:04	akku10.ashvika@gmail.com	Ashvika Pathania	8988174203	akku10.ashvika@gmail.com	Department of Zoology	Assis tant professor	Sri Sai University Palampur
03/03/2021 14:20:09	msharmahpkv1983@gmail.com	Dr. MEENAKSHI SHARMA	8988213555	msharmahpkv1983@gmail.com	ZOOLOGY	Assis tant professor	SRI SAI UNIVERSITY, PALAMPUR





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03/03/2021 16:08:27	shrishanaik@sdmcejir.e.in	Dr.	9880903569	shrishanaik@sdmcejir.e.in	Biotechnology	Assistant professor	Sri Dharmastala Manjunatheswara College (Autonomous)
03/03/2021 22:48:26	varalakshmi@stmaryscollege.in	Ms. V. Varalakshmi	9177745349	varalakshmi@stmaryscollege.in	Biotechnology	Assistant professor	St. Mary's College, Yousufguda, Telangana
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08/03/2021 13:06:16	balu10.honey@gmail.com	Dr. M.V.Balasubramanyam	9844360196	balu10.honey@gmail.com	Zoology	Assistant professor	GFGC and PG Centre, Chintamani
04/02/2021 10:53:56	dr.valarmathyk@gmail.com	Dr.K.Valarmathy	9739672705	dr.valarmathyk@gmail.com	Biotechnology	Associate professor	The Oxford College of Engineering
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05/02/2021 14:14:13	nidhi.nath76@gmail.com	Ms Nidhi Nath	+918709021723	nidhi.nath76@gmail.com	Life Science	Industry personnel	Central University of Jharkhand
05/02/2021 14:14:4:	gomathi83ms@gmail.com	Dr. M. GOMATHI	9159891623	gomathi83ms@gmail.com	Biotechnology	Assistant professor	Marudhar Kesari Jain College for Women



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03/03/2021 09:14:58	sentilkr1993@gmail.com	Sentiyanger Longkumer	9378167057	sentilkr1993@gmail.com	Zoology department	Indus try pers onnel	Nagaland University, Lumami
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05/02/2021 14:39:39	ibrahim.labadi@yahoo.com	Ibrahim Al-Labadi	0036706577948	ibrahim.labadi@yahoo.com	Environm ent	Indus try pers onnel	Szent Istvan University
05/02/2021 14:41:37	praveenramanujam@gmail.com	Prof. R. Praveen Kumar	9842073165	praveenramanujam@gmail.com	Biotechno logy	Asso ciate profe ssor	Arunai Engineering College
05/02/2021 14:42:26	arivoli82@gmail.com	Dr. A. ARIVOLI	9894289210	arivoli82@gmail.com	Environm ental Science	Assis tant profe ssor	Government Art's College
05/02/2021 14:43:59	spmicro1747@rediffmail.com	Vijay S Wadhai	9422137698	spmicro1747@rediffmail.com	Microbiol ogy	Profe ssor	Sardar Patel Mahavidyalaya Chandrapur



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05/02 / 2021 14:52 : 15	anisurehman.2011@rediffmail.com	Dr. MOHD ANIS GANAIE	9797748261	anisurehman.2011@rediffmail.com	Zoology	Assistant professor	Higher education Department, Jammu and Kashmir
05/02 / 2021 14:56 : 14	eswarseta@gmail.com	Eswara Rao Tatta	9550090133	eswarseta@gmail.com	Department of genomic science	Industry personnel	Central University of Kerala
05/02 / 2021 14:57 : 15	miniaayushi@gmail.com	MS.	9720952868	miniaayushi@gmail.com	Molecular Biology	Industry personnel	Dr. Sachin Saxena memorial Diagnostic Centre
05/02 / 2021 15:12 : 18	tishaliza@gmail.com	Mrs.Tisha Liza Tomy	953972214	tishaliza@gmail.com	Biotechnology	Assistant professor	St.Mary's College, Thrissur
05/02 / 2021 15:14 : 11	shovanbiswas231@gmail.com	Mr.SHOVAN BISWAS	8388812463	shovanbiswas231@gmail.com	BOTANY	Industry personnel	VISVA-BHARATI UNIVERSITY
05/02 / 2021 15:15 : 56	hariswethah@gmail.com	HARISWETHA A. S	638142286	hariswethah@gmail.com	Biochemistry	Industry personnel	Vivekananda college of arts and science for women Autonomous
05/02 / 2021 15:17 : 33	saranyaar@gmail.com	Mrs.A.R.SARANYADEVI	9786268455	saranyaar@gmail.com	BIOCHEMISTRY	Assistant professor	SOURASHTRA COLLEGE, MADURAI
05/02 /	raghavanmku@gmail.com	Dr. Raghavan	9789121	raghavanmku@gmail.com	Biochemistry	Assistant	Sourashtra





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05/02 / 2021 15:23 : 50	sanjuverma06@gm ail. com	Dr Sanjeev  Kumar Verma	999782 7 812	sanjuverma06@gm ail. com	Microbiol o gy	Assis tant  prof e ssor	VCSG UUHF  Bharsar Pauri  Garhwal  Uttarakhand
05/02 / 2021 15:24 : 38	rashms@gmail.com	Dr. Rashmi S	988661 6 004	rashms@gmail.com	PG  Departme n t of Botany	Assis tant  prof e ssor	JSS College of  Arts, Commerce and Science
05/02 / 2021 15:24 : 44	vinogenes@gmail.c o m	Dr. S. Vinoth	989427 7 726	vinogenes@gmail.c o m	Biotechno l ogy	Assis tant  prof e ssor	Sona College of Arts and Science



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Principal, The Oxford College of Engineering.

### Coordinator & Organizing Secretary

**Dr. B. R. RAJU**

Professor & Head, Dept. of Automobile Engineering.

### ABOUT THE INSTITUTE

The Oxford College of Engineering is one of the most prestigious institutions in Bengaluru that provides quality training in professional education in various streams of engineering (09 UG, 12 PG Programmes & 12 R&D Centers approved by VTU to carryout Ph.D. & M.Sc. Engg. programme.) The college has dedicated and highly qualified team of faculty who offer quality education to the students as per the academic scheme of VTU. The institution is well known for its Consultancy, Research and Development activities and departments have financial assistance from reputed state (VGST/KSCST/VTU) & Central (DRDO-NRB, DAE-BRNS, AICTE, ICMR, NIF) funding authorities to cater to the need of young researchers and students in engineering and management domains.

### ABOUT THE DEPARTMENT

The Department has well equipped laboratories, well qualified & experience staff. The department is eternally engaged in the academic enrichment of students as well as their overall progress by revealing them to the real problems through Industrial Visits, Projects & guidance through participation in various competitions. The department conducts various value added programs & seminars to enhance students practical knowledge & employability. The Department started with an intake of 60 students along with PG Course (M.Tech.) in Automotive Engineering with an intake of 18 students.

The vision of the department is "To establish the department as a renowned centre of excellence in the area of scientific education, research with industrial guidance and exploration of the latest advances in the rapidly changing field of Automobile Engineering

### ABOUT THE PROGRAM

The Course will be extremely beneficial to teachers, research scholars and practicing engineers those who aspire to update their knowledge in the recent developments taken place in Product design & Manufacturing in Automobile and Machine Tool industries.

### OBJECTIVES

- To conduct programs to build research, teaching and administration competence for holistic development of individuals.
- Recent Trends & Challenges in New Product Development is the process of reducing waste in time, cost, and space in the manufacturing environment.
- To create awareness among participants about new tools and techniques used for Product Design & Manufacturing.
- The Short Term Training Programme (STTP) is to update the faculty members of the Automobile/Mechanical Engineering across the country on the latest trends in Product design and Manufacturing.



### AICTE - SPONSORED SHORT TERM TRAINING PROGRAMME (STTP) ON

### "RECENT TRENDS & CHALLENGES IN NEW PRODUCT DEVELOPMENT"

### ORGANISED

### BY

### DEPARTMENT OF AUTOMOBILE ENGINEERING



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### Organizing Committee:

1. Prof. Sandeep K Chavan, Asso, Professor

2. Prof. Maruthi S B, Asst. Professor

3. Prof. S.B.Desai, Asst. Professor

4. Prof. Shivakumar, M Asst. Professor

### Contact Details:

**Prof. Sandeep K Chavan** Assoc, Professor

Department of Automobile Engineering, The  
Oxford College of Engineering, Bangalore

☎ [skc\\_toce@gmail.com](mailto:skc_toce@gmail.com)

☎ +91-8310364667

**Prof. Maruthi S B**, Asst. Professor,

Department of Automobile Engineering, The  
Oxford College of Engineering, Bangalore

☎ [maruthi\\_toce@gmail.com](mailto:maruthi_toce@gmail.com)

☎ +91-9742180785

### Content of the STTP:

- ❖ Concept Initiation
- ❖ Product Visualization & Styling
- ❖ Industrial Design
- ❖ Engineering Ergonomics
- ❖ Rapid Prototyping and Reverse Engineering
- ❖ Robust Design
- ❖ Finite Element Analysis in Product Design
- ❖ Applications of PLM in Product Development
- ❖ Patents & Intellectual Property Rights
- ❖ Reliability Based Design
- ❖ Product Architecture
- ❖ Other Related Topics

### RESOURCE PERSONS

- Dr. Amarnath K. Director, The Oxford Group of Institutions, Bangalore.
- Dr. A. S. Aravind, Principal, The Oxford College of Engineering, Bangalore.
- Sri Sadashiva Balligeri, Vice-President, Business development, Toyota Kirloskar Auto Parts Pvt.Ltd.
- Sri S. K. Vijay, General Manager, M/s TVS Motor Co Limited, Hosur, TN
- Sri S. Pradeep Kumar, General Manager, M/s KENNAMETAL, Bengaluru
- Sri T. S. Anandakumar, General Manager, M/s BOSCH Limited, Bengaluru
- Sri Shridhar Ramkrishna, Head-India Technical Centre, M/s. TENNECO Powertrain, India, Bengaluru.
- Dr. C. K. Srinivas, Former HOD-Rapid Prototyping, M/s. CMIT, Bengaluru.
- Dr. S. Seetharamu, Former Director, M/s. CPRI, Bengaluru.
- Sri D. R. Kumar, Managing Director, M/s. Skanda M/c Tools (P) Ltd., Bengaluru.
- Sri M. Chandrashekhara M Tiganubidari, GM, M/s. Pneumatica Tech.(P) Bengaluru.
- Sri M. Shivakumar, Managing Partner, M/s. Unique Precisions, Bengaluru.
- Sri D. Shankar Prakash, Technical Director Royote engineering Solutions Pvt.Ltd
- Dr.N.D.Shivakumar, CPDM, IISc, Bangalore.
- Dr. G.L. Samuel, Professor, JNTU, Madras.
- Dr. S.S. Hiremath, Professor, JNTU, Madras.
- Dr. S. M. Kulkarni, NITK, Surathkal.
- Dr.N.V.R.Naidu, Principal, MSRIT, Bangalore.
- Dr.Manjunath, Principal, New Horizon college of engineering, Bangalore.
- Dr.C.P.S. Prakash, Principal, Dayananda Sagar College of engineering, Bangalore.
- Dr Suresha. B Professor, R&D Head NIE, Mysore.
- Dr. A.M.Ravi, Technical Edu. Board, Harihar

### Mode of Conduction:

STTP will be conducted in 03 different slots through on-line mode using Microsoft Team. The participants have to register and link will be shared for the registered participants.

### Who can Attend:

Faculty members from the AICTE approved institutions, Research scholars and various Government Organizations, Universities and Industry professionals working in the related area can participate in the programme.

### Registration:

Last date for Registration: **8<sup>th</sup> October 2020**  
**No Registration Fee**

Participants have to register by using the below link

<https://docs.google.com/forms/d/1mzOcn1TLvK3LEPZAeFLuISaQbNFvPEuCZxxvH7IMedw>



### NOTE:

A test shall be conducted by program evaluation committee at the end of the program & the e-certificates shall be issued to those participants who have attended the program & have qualified in the test.

### IMPORTANT DATES:

STTP -1: 12<sup>th</sup> -17<sup>th</sup> October, 2020

STTP -2: 2<sup>nd</sup> -7<sup>th</sup> November, 2020

STTP -3: 23<sup>rd</sup> -28<sup>th</sup> November, 2020



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**AICTE Sponsored**

Short Term Training Programme "Recent Trends & Challenges for New Product Development

**Report**

On

AICTE Sponsored Short Term Training Programme on "Recent Trends & Challenges For NPD"

At

The Oxford College of Engineering, Bengaluru

**STTP-1 From October 12<sup>th</sup> to October 17<sup>th</sup> 2020**

The AICTE STTP on **"Recent Trends & Challenges for New Product Development"** inaugurated by Dr. Achyutha Rao, Former Head, National Institute of Design, Bengaluru, as a Chief guest, Dr. Raju B R, FDP Co-ordinator gave welcome speech to all the participants on 12<sup>th</sup> October 2020. Total 70 participants had attended the programme and gained the knowledge in the field of New Product Development in which 50 outside participants and 20 internal participants were attended. These sessions were handled by the various subject experts and details of talks are enclosed in the programme schedule. The Lab Session on Digital Manufacturing-Human, factor analysis by Prof. Sandeep Kumar Chavan, Bengaluru on 12<sup>th</sup> and 17<sup>th</sup> October 2020. The Valedictory function held on 17<sup>th</sup> October 2020 by D Shankar Prakash, Technical Head, Royata Engineering Solutions, Bengaluru was the Chief guest and Dr. Aravind S, Principal, The Oxford College of Engineering, Bengaluru was presided over the function. Dr. Raju B R, STTP Co-ordinator and Prof. Sandeep Kumar K Chavan, Event Coordinator, Department of Automobile Engineering, The Oxford College of Engineering, Bengaluru has delivered the vote of thanks.





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Date: 12<sup>th</sup> October, 2020 Inauguration Session

**AICTE Sponsored**

**Short Term Training Programme "Recent trends & Challenges for new product development"**

Inaugurated by Dr. Achyutha Rao, Former Head, National Institute of Design, Bengaluru, as a Chiefguest,





**Day-1 & Date:** 12-10-2020

### Technical Session-1:

**Topic:** Growth Through Innovation and New Product Development

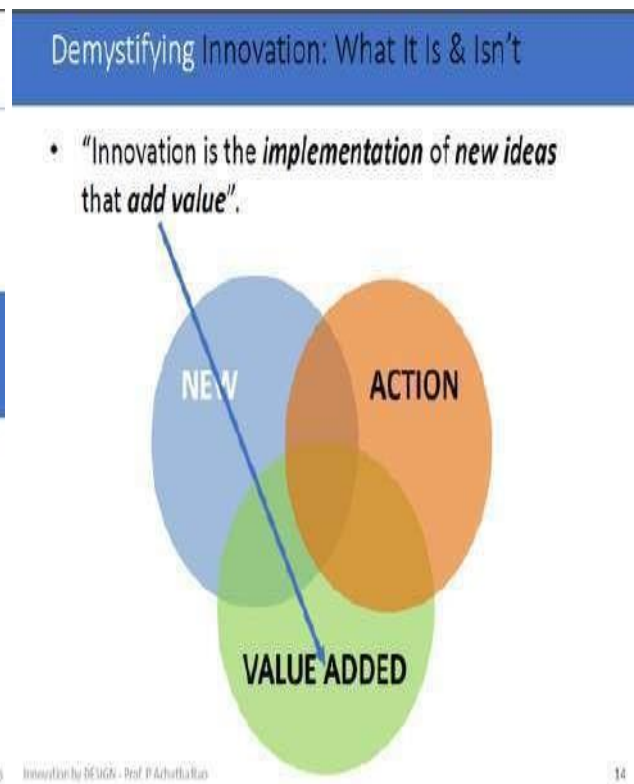
**Resource Person:** Dr. Achyutha Rao, Former Head, National Institute of Design, Bengaluru

The first technical session was started with formal welcome note by Dr. Raju B R, FDP Co-ordinator, Professor and Head, Department of Automobile Engineering. The resource person of this Automobile Engineering, The Oxford College of Engineering

### AICTE Sponsored

#### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

session, **Dr. Achyutha Rao**, started his discussion with detail description on challenges in the product development process in the various industries like automobile, machinetools, etc. He gave brief overview of manufacturing process in Toyota Production System (TPS). He further added that if faculty wants to develop them selves and their students, then attending such faculty development programs would enhance their skills of teaching the practical concepts. He ended the discussion with the quotation: "WinIndia, Win the World" The session was ended with the vote of thanks given by Dr. Raju B R, Professor and Head, Department of





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### Technical Session-2:

**Topic:** Product Design

**Resource Person:** Dr. Achyutha Rao, Former Head, National Institute of Design, Bengaluru

Has given talk on Product development is the set of activities beginning with the perception of a market opportunity and ending in the production, sale, and delivery of a product. He addresses Characteristics of Successful Product Development and also the explicitly focus on products that are engineered, discrete, and physical.

At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.

# "Everything is Design"

Tool for  
Expression of self



[http://www.bed.com/talks/matt\\_ridley\\_when\\_ideas\\_have\\_sex.html](http://www.bed.com/talks/matt_ridley_when_ideas_have_sex.html)

Tom Peters



## WHAT IS DESIGN





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## Technical Session-3:

### Topic: Dr. Raju B R

**Resource person:** Dr. Raju B R, HOD, Department of Automobile Engineering, TOCE

Welcome note was presented by Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, He started Composites are light in weight when compared to woods and metals. It consists of two or more distinct phases such as matrix phase and a dispersed phase. Metal matrix composites are expensive and limitations in achieving stiffness and toughness for materials to overcome these limitations, hybrid metal matrix composites (HMMC's) are fabricated and designed. In recent years hybrid metal matrix composites (HMMC's) are plays a vital role especially in material science in the field of aerospace, marine, transportation, military and structural applications. Aluminium (Al) based metal matrix hybrid composites are used extensively in the field of automotive industries due to its low density and high strength-to-weight ratio. At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.

**Properties of composite materials**

- ❖ High strength at low weights
- ❖ Good impact, compression and fatigue.
- ❖ Cost-effective manufacturing processes.
- ❖ Excellent chemical and corrosion resistance.
- ❖ Good abrasion resistance.

**Applications of composite materials**

- ❑ **Construction:** Bathtubs, shower stalls and floors etc.
- ❑ **Marine:** Ski boats, fishing boats, sail boats etc.
- ❑ **Transportation:** Automobile body panels and structural components etc.
- ❑ **Consumer:** Sporting goods, decorative art etc.
- ❑ **Electrical:** Housing appliances, circuit boards, insulating boards etc.

Dr. Raju B R, Dept. of Automobile, TOCE 10/12/2020



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## AICTE Sponsored

### Short Term Training Programme "Recent trends & Challenges for new product development"

**Day-2 & Date:** 13-10-2020

#### Technical session-4:

**Topic:** Alternative energy source for Automobile - Hybrid Vehicle

**Resource Person:** Dr. Bharath Kumar V S, Professor & Head, Dept. of EEE, T.O.C.E., Bengaluru

Has given technical talk on Historical perspective of development of Hybrid Vehicle and future electric cars are invented to overcome air and sound pollution in present scenario. He given the components of hybrid vehicles and mentioned the pros and cons of future cars. At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.





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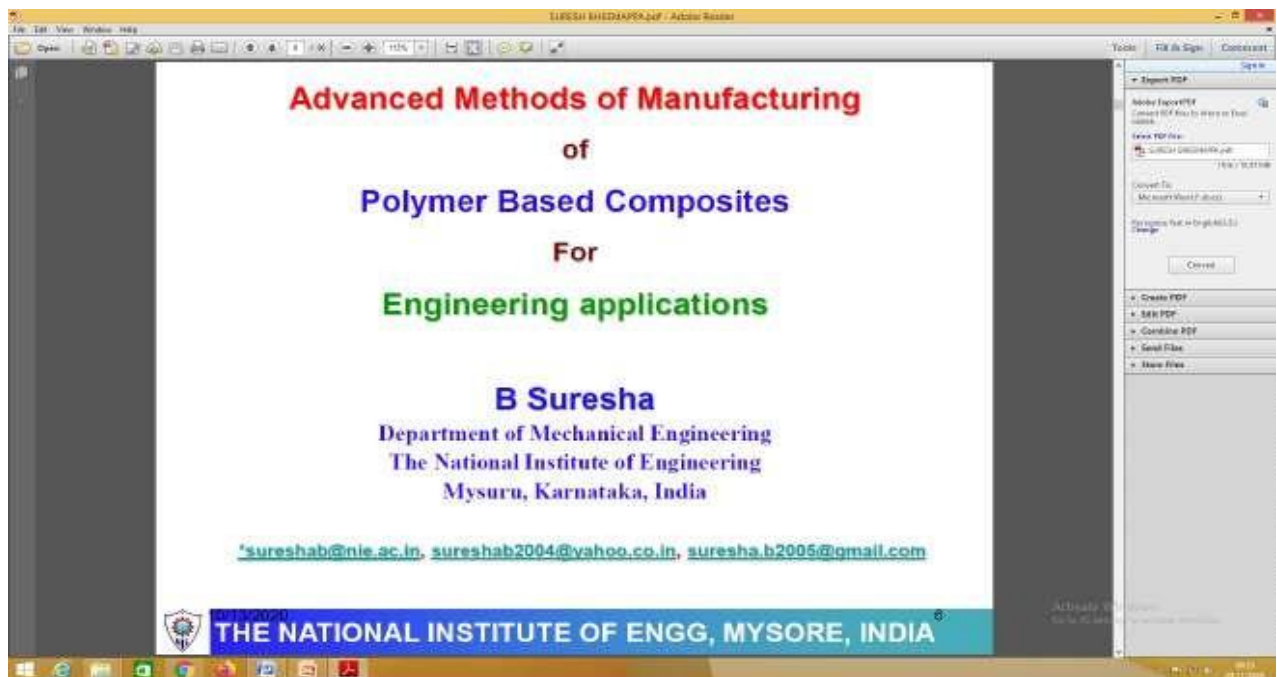
## Technical session-5:

**Topic:** Advanced Methods of Manufacturing of Polymer Based Composites for Engg Applications

**Resource Person:** Dr. Suresha, Professor, Dean and R&D Head, NIE, Mysore.

Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Has given overview of Methods of Manufacturing materials and also share knowledge on Composite materials and its various applications.

At the end of the session, Mr. Sandeep Kumar C, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.







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### **AICTE Sponsored**

### **Short Term Training Programme "Recent trends & Challenges for new product development"**

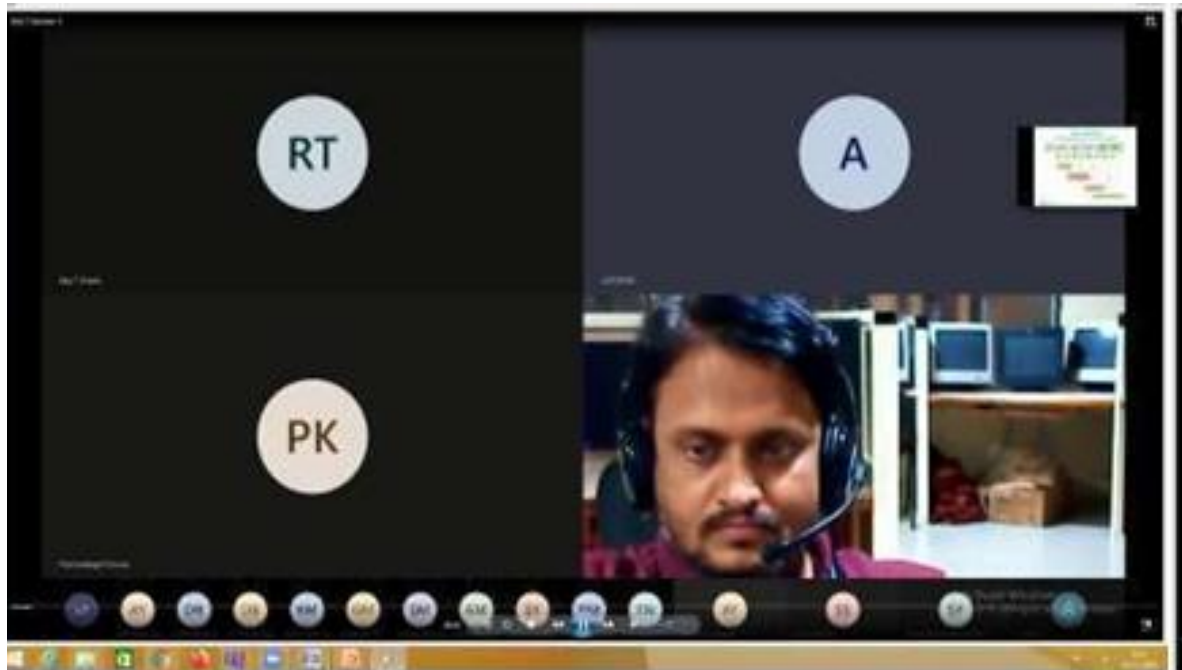
#### **Technical session-6:**

**Topic:** Applications of PLM in Product development

**Resource Person:** Mr. Sandeep K Chavan, Associate Professor, TOCE, Bengaluru

Dr. Raju.B. R Professor and Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Lecturer on core knowledge on Components of Product life cycle management (PLM) & their Opportunities in PLM for better product which is going to be delivering on time to the consumers & importance of data acquisition for various products to systematize the processes in manufacturing industries by using Product Data Management-PDM.

At the end of the session, Mr. Maruthi S B, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.





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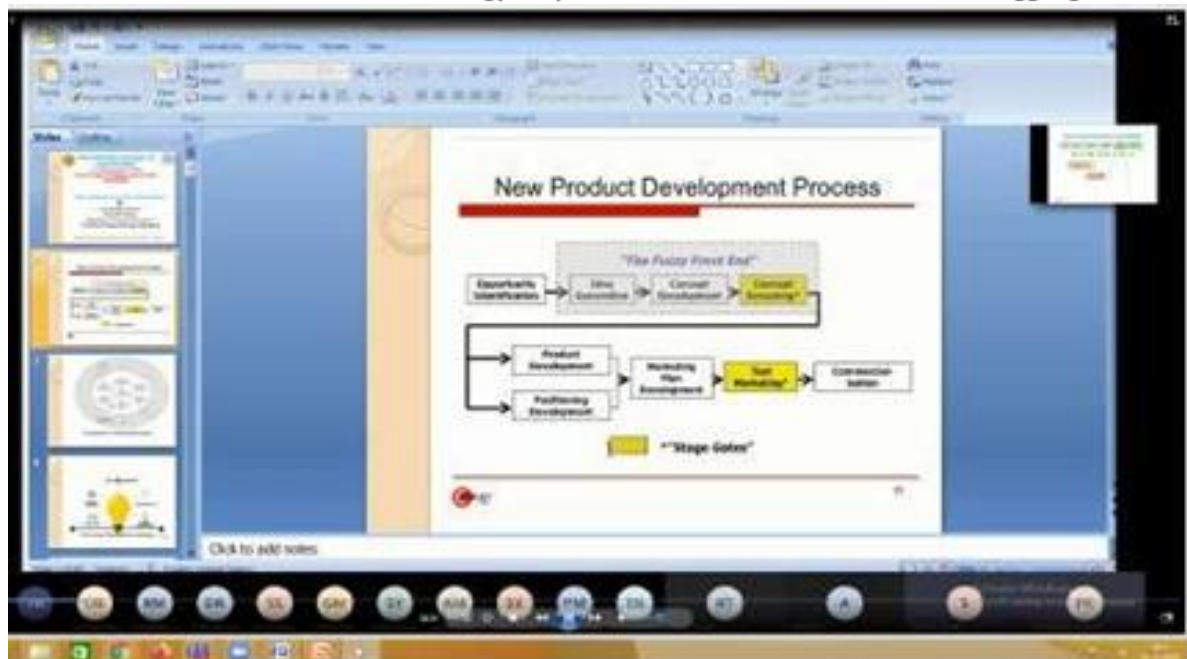
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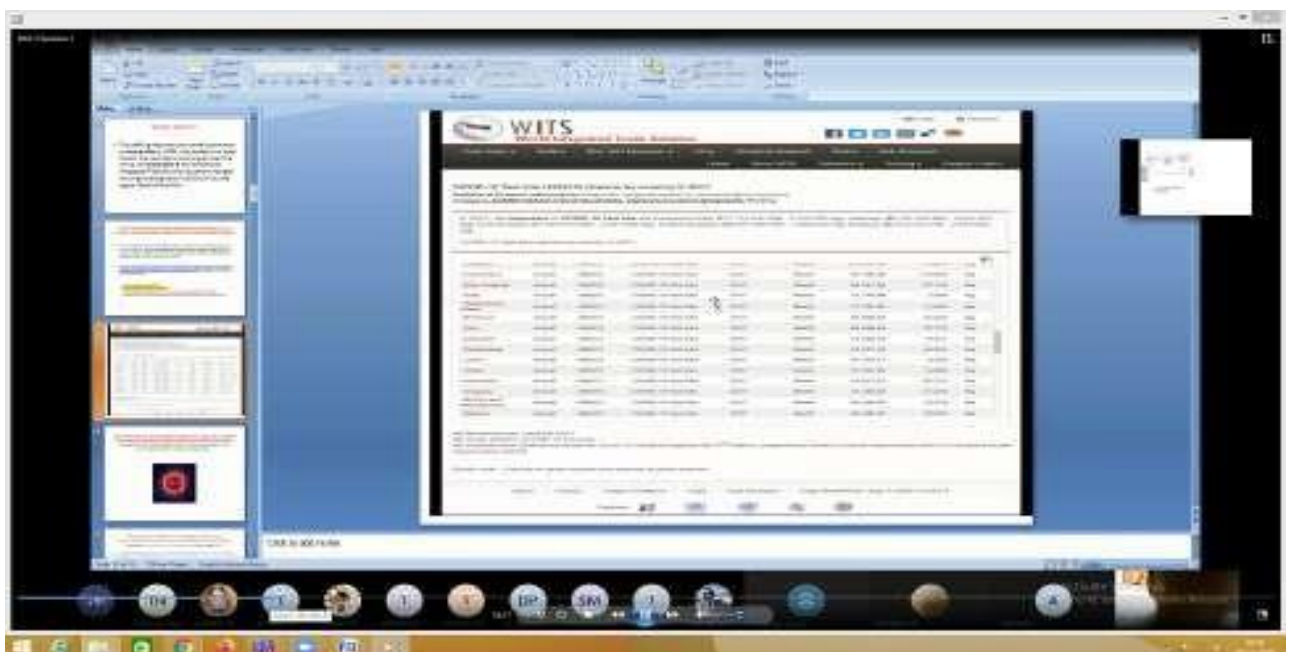
**Day-3 & Date: 14-10-2020**

**Technical session-7:**

**Topic:** Fully Engineered Pandemic Covid-19

**Resource Person:** Dr. Shashidhar M S & Head, Dept of MCA, T.O.C.E., Bangalore

As a resource person of the session, highlighted the importance of Epidemic a wide spread occurrence of an infectious disease in a community at a particular time Pandemic:(of adisease) prevalent over a whole country or the world. This large group of medical experts publishes a medical newspaper on **500,000 copies every week**, to inform the public about the massive misinformation in the mainstream media. They also organize mass protests in Europe, like the one on August 29, 2020 where **12 million people signed up** and several millions actually showed up.







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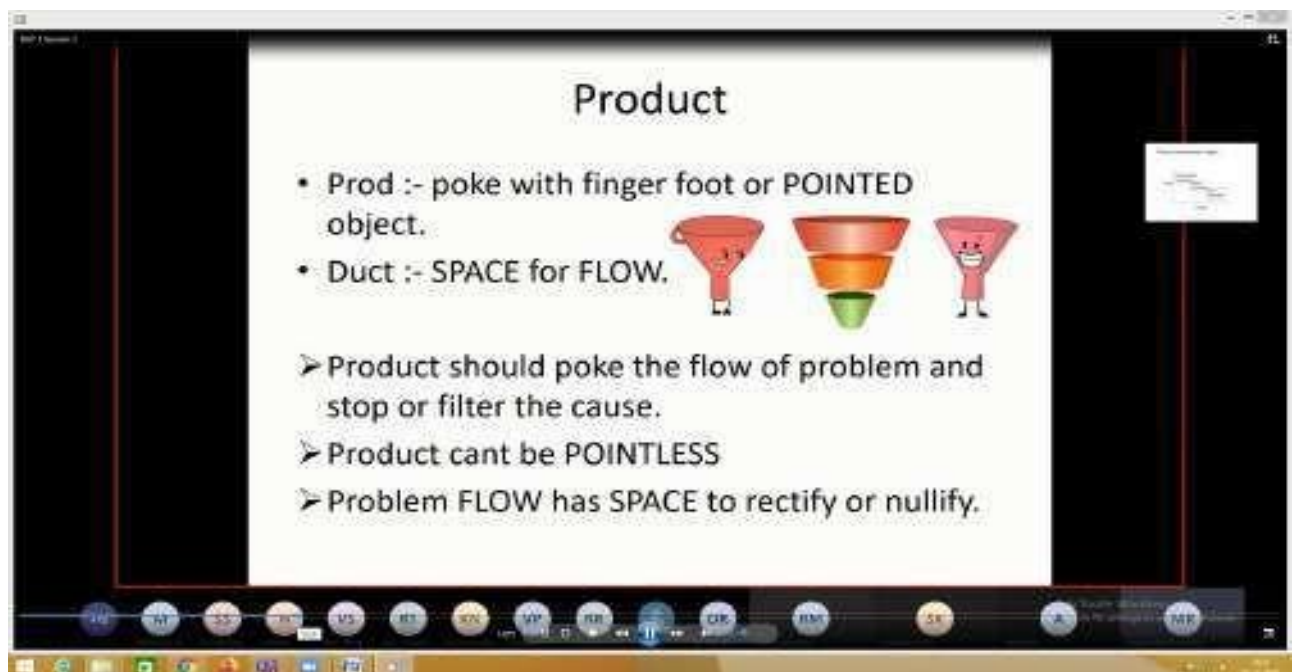
Short Term Training Programme "Recent trends & Challenges for new product development

### Technical session-8:

**Topic:** Concept Initiation and Creative Thinking

**Resource Person:** Mr. Madhu Mohan R, HOD, DIR, AMCE, Bengaluru

The third day technical session-8 was started with **Madhu Mohan**. He briefed the Concept is a ABSTRACT IDEA which is not in physical existence, sometimes it's a PURE FORM OF ART which is drawn in air, illustrated and developed. Hyper creative thought process to result in need statements and wishing Architectural engineering & construction Gaming Graphics Design, Manufacturing Mechatronics, Product design and robotics.





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## Technical session-9:

**Topic:** A concept of Wiring, Lighting system in Automotive Electrical and Electronics Systems for NPD

**Resource Person:** Mr. Maruthi S B, Assistant Professor, TOCE, Bengaluru

The last session of the day was headed by Prof. Maruthi SB, He started with the History and generation of cars to the present Hybrid Electric cars. He explained the product design and development of various electrical accessories of the automotive vehicles and the methods of testing the head lamps and tail lamps of car. He concluded the topic by giving the future lightning system and wiring diagrams of the Automotive vehicle.



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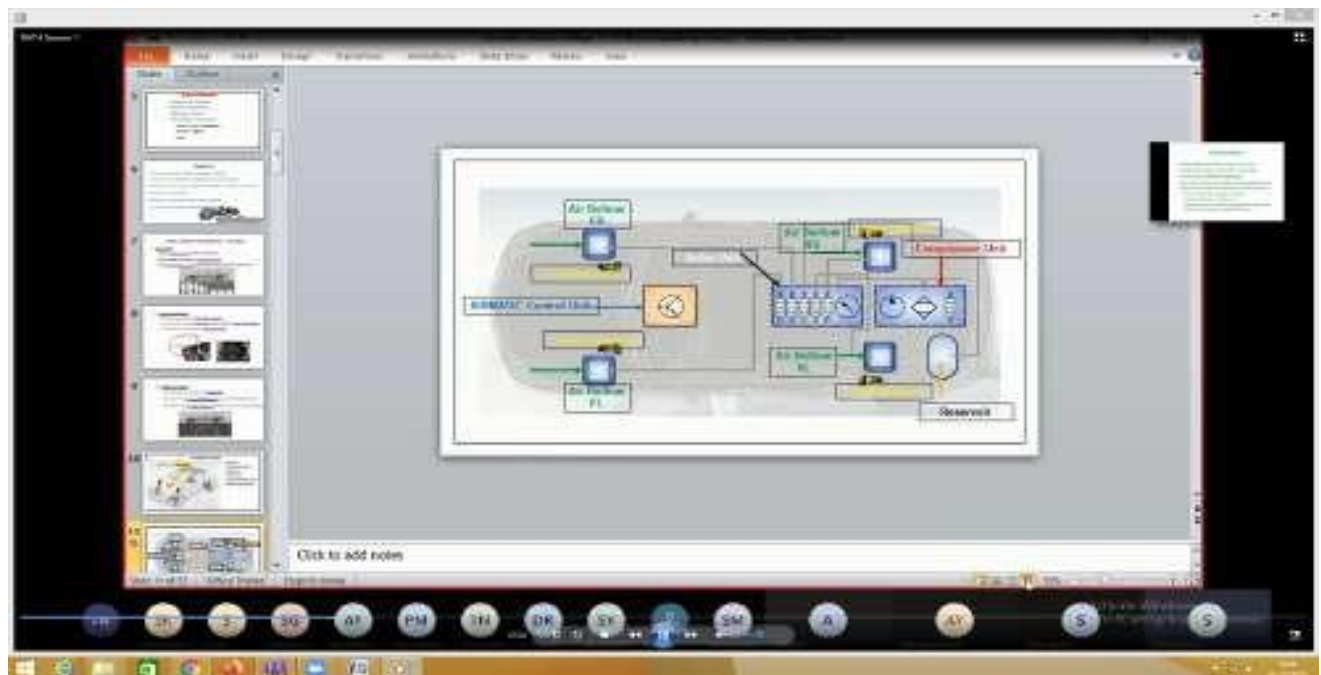
**Day-4 & Date:** 15-10-2020

**Technical session-10:**

**Topic:** Adaptive Electronic Suspension systems

**Resource Person:** Dr. Raju. B.R Professor & Head, Dept, of Automobile Engg, T.O.C.E., Bengaluru

He started the session with the basics of properties of matrix and reinforcement Discussion and Furtherhe defined the difference between the composites and ferrous metals & well described the variousmeasures of hybrid composites which has tremendous applications in the automotive industries.





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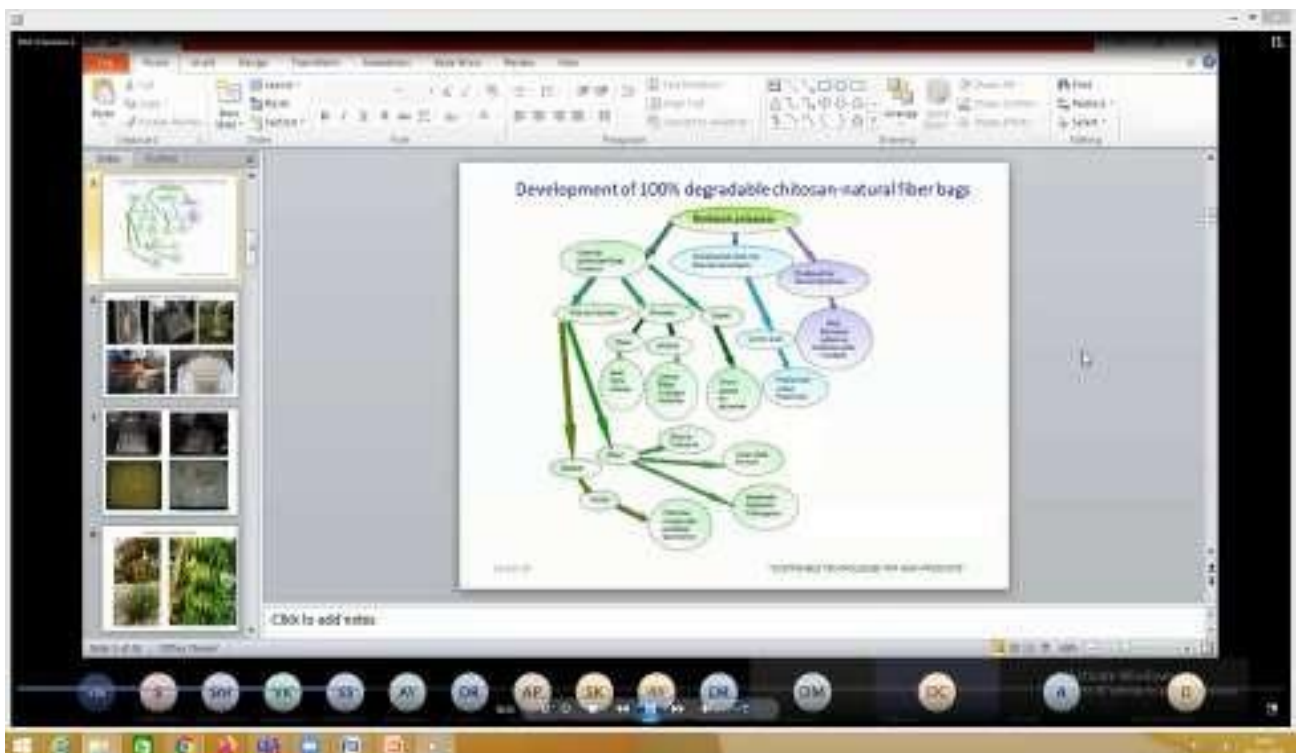
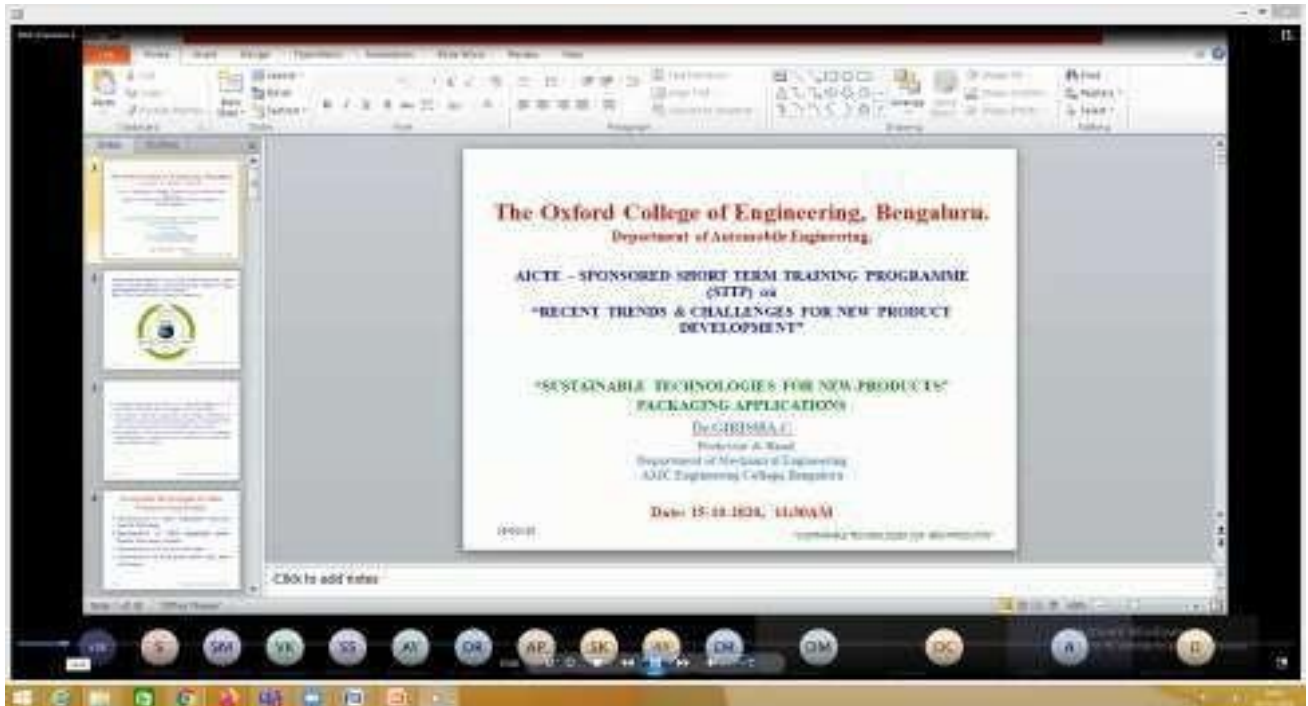
## Technical session-11:

**Topic:** Sustainable Technologies for New-Products “Packaging Applications”

**Resource Person:** Dr. Girisha C Professor & Head, Dept, of Mechanical Engg. T.O.C.E., Bengaluru

Mr. Sandeep k chavan welcomed the resource person and delegates of the 11th technical session.

Technical session was started by Dr. Girisha C He started his discussion with the various multivariate techniques, their need and importance in quality parameters in production process.





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## Technical session-12:

**Topic:** Autotronics: Improving Vehicle Performance

**Resource Person:** Dr. J Ravi Professor, GAT, Bengaluru

Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Resource person of the technical session, Prof. J Ravi discussed in detail importance of Research scenario in the field of Automotive and its vehicle performance year by year. He explained in detail the manufacturing process of the Automotive vehicles and the various sensors used in the vehicles.

**Why is advancement in automotive systems important ?**

- The century-old automobile has preferred mode for personal mobility throughout the developed world and is rapidly becoming a complex electromechanical system.
- Technologies are being added to automobiles to improve operational safety, reduce congestion and energy consumption and minimize environmental impact.
- There is a huge demand for safer, smarter & energy-efficient transportation system.
- Automotive electronics plays a crucial role for realization of these mechatronic systems.
  - Examples include hybrid power trains, electronic engine transmission controls, cruise control, antilock brakes, differential braking and active/semi-active, suspensions.

**History of Car Media - It is Accelerating!**

Timeline of Car Media:

- 1930s:** Commercial introduction of the first car radio controls in the US.
- 1952:** Chrysler introduced the first car stereo.
- 1965:** First car stereo with a cassette player.
- 1970's:** Introduction of the first car stereo with a cassette player.
- 1980's:** Introduction of the first car stereo with a cassette player.
- 1990's:** Introduction of the first car stereo with a cassette player.
- 1996:** Introduction of the first car stereo with a cassette player.
- 1997:** Introduction of the first car stereo with a cassette player.
- 2002:** Introduction of the first car stereo with a cassette player.
- 2003:** Introduction of the first car stereo with a cassette player.
- What Next?**



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### AICTE Sponsored

#### Short Term Training Programme "Recent trends & Challenges for new product development"

**Day-5 & Date:** 16-10-2020

**Technical session-13:**

**Topic:** Application of Ergonomics in New Product Design and Development

**Resource Person:** Mr. Shridhar Ramakrishna, Principal, T.O.C.E., Bengaluru

In the Fourth day's technical session, welcome note was presented by Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, Dr. R V Praveena Gowda, as a resource person of the session, started his discussion with the basic idea of Process optimization of manufacturing process and gave brief discussion on adaptive and smart manufacturing. He deeply explained future materials which are biodegradable in nature i. e Biocomposite and also enlightened the participants to involve in researchwork on biocomposites.

At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.







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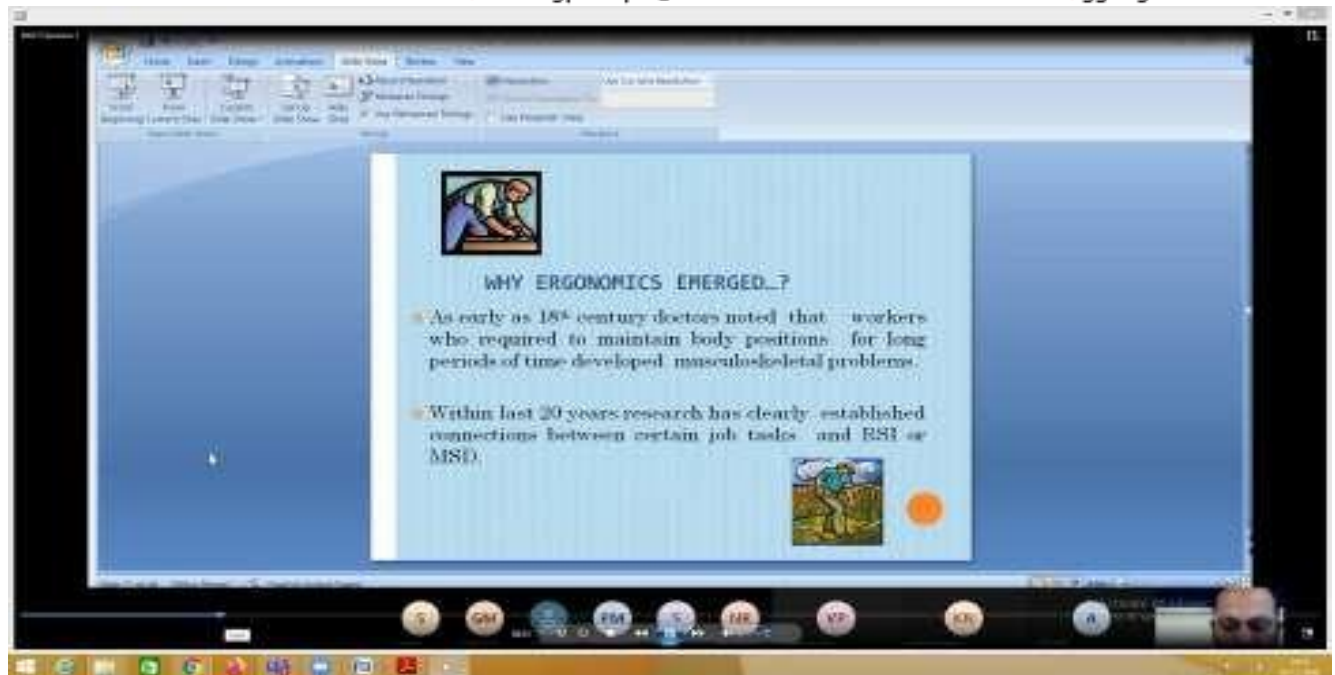
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**Technical session-14:**

**Topic:** Power of Artificial Intelligence in PDM

**Resource Person:** Dr. M S Shashidhara, Professor & Head, MCA, T.O.C.E., Bengaluru

Prof. B Dr. MS Shashidhara, Professor has begun his talk by explaining power of artificial intelligence to create insights and detect patterns and anomalies that escape detection by the cognitive. He described, In design engineering domain, integrated concepts of artificial intelligence in commercial PDM systems. The software is based on a dynamic and flexible work flow model, as opposed to the deterministic workflows seen in most commercial PDM applications.

Mr. Harish Kumar, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.





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## AICTE Sponsored

### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

#### Technical session-15:

**Topic:** Development of Tooling's in Hard Turning of High-Chrome White Cast Iron.

**Resource Person:** Dr. Ravi A M, Professor, SGL, Dept of Technical Education.

Dr. Ravi A M, Professor discussed in detail importance Design and Development of Tooling's in Hard Chrome white Iron and the integration of product design and process planning into one common activity. The goal is to design a product that is easily and economically manufactured and explained the Machined Part Design Guidelines, Elements of the Manufacturing Cost of a Product

**Background...**

**New Inventions:**

- + Metal alloys, Composite material, Hard polymers etc...

**Limitation:**

- Suitable machining method,
- Suitable cutting tools,

**New Challenges!!!**

**Leading Cutting tools mfrs**

- \* MITSUBISHI
- \* SANIWE
- \* HITACHI
- \* SUMITOMO
- \* ROBERT BOSCH etc.

**Flowchart:**

```
graph LR; A[New Materials] --> B[Shaping Process]; B --> C[New Product development / Applications 1,2,3.....]; B --> D[Tooling's?]; B --> E[Machining Methods?];
```

**How to cut Hard materials?, Types**

- 1. Conventional Method**  
Heat treatment — Grinding — Polishing  
(Annealing- 38 to 45HRC)
- 2. Hard Part Machining**
  1. Harder cutting tools (Ex. CBN/pCBN/Diamond etc.).
  2. High speed machining (<10000rpm)

Cutting temperature — Frictional heat
- 3. Hot Machining (Thermally Enhanced Machining)**  
Addition of external heat at the tool-work interface (shear zones).





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Day-6 & Date: 17-10-2020

Technical session-16:

Topic: Autonomous Driving.

Resource Person: **D. Shankar Prakash, Professor, Royota Engineering Solutions.**

D. Shankar Prakash, Professor discussed in detail Advanced driver-assistance systems (ADAS) are electronic systems that assist drivers in driving and parking functions Through a safe human-machine interface, ADAS increase car and road safety ADAS systems use automated technology, such as sensors and cameras, to detect nearby obstacles or driver errors, and respond accordingly.

**NEW TRENDS – PRODUCT DEVELOPMENT**

ROYOTA

- Enabling the advanced features expected in the products of today requires the integration of components from across domains.
  - Mechanical
  - Electrical
  - Electronics and embedded software

must come together to implement desirable features, including autonomy, connectivity, and electrification.

An integrated E/E solution solves tomorrow's challenges and supports companies as they strive to overcome complexity and reduce time to market.

**BIW Joining – Types and Cost**

ROYOTA

Forming	Joining	Surface/Corrosion	Functionality
<ul style="list-style-type: none"><li>Formability</li><li>Punch force</li><li>Forming limit diagram</li><li>Cutting</li><li>Cutting forces</li><li>Spring back</li></ul>	<ul style="list-style-type: none"><li>Spot Welding</li><li>Adhesive Bonding</li><li>MIG welding</li><li>MIG brazing</li><li>Laser welding</li><li>Riveting</li></ul>	<ul style="list-style-type: none"><li>Class A surface</li><li>Adhesive bonding</li><li>Paint adhesion</li><li>Contact corrosion</li></ul>	<ul style="list-style-type: none"><li>Ductility during crash (<math>R_{ts}</math>, <math>R_{ts}</math>, <math>A_{ts}</math>, ...)</li><li>Fatigue strength</li><li>E-Modulus (stiffness)</li><li>Weight (density)</li><li>Frequency attenuation</li><li>Acoustics</li></ul>

Process: Press-Shop → Body-in-White → Paint

Product



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**AICTE Sponsored**

## Short Term Training Programme "Recent trends & Challenges for new product development

### Technical session-17:

**Topic:** Recent Trend and Challenges in New Product Development.

**Resource Person:** D. Shankar Prakash, Professor, Royota Engineering Solutions.

D. Shankar Prakash, Professor discussed the improvements and influence of real-world performance, Computer aided engineering simulation allows engineers to see in to the future, predicting the consequence of any design change on the real-world performance of their products Deployed effectively, it can be used to improve our design through multiple iterations, providing data to guide the design process from its earliest stages, through to production and beyond.





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### Valedictory Function:

On the valedictory ceremony, Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., Bangalore join the session as a chief guest, along with Dr. R Nagaraj, Director of The Oxford Group of Institutions, Bangalore, Dr. R J Anandhi, Vice Principal, The Oxford College of Engineering, Bangalore, Dr. Raju BR, FDP Coordinator, Professor and Head, Department of Automobile Engineering, Dr. N B Doddapattar, Prof & Head, Dept of Mechanical, TOCE, Bangalore

On this occasion, Dr. R Nagaraj, Director of The Oxford Group of Institutions in his address, appreciates Dr. Raju B R, FDP Coordinator along with her team, for successful completion of the program.

Dr. Raju B R, FDP Coordinator, welcomes, Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., chief guest of the valedictory ceremony and resource person of the session along with advisory board, media persons and all the dignitaries and delegates presented on valedictory session.

At the end, the valedictory session was concluded with a vote of thanks given by Mr. Sandeep Kumar K Chavan, Assistant Professor, Dept, of Automobile Engg, in which he has been paid his gratitude towards all the dignitaries who have spared their time and come from far distance places to share their expertise with the participants. He has also thanked the media persons for their continuous coverage of the entire programme.





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### Short Term Training Programme "Recent trends & Challenges for new product development"

Nevertheless, he has given thanks to sponsoring body of this FDP i.e. AICTE with these words, "We are highly thankful to the AICTE for providing financial assistance to organize this FDP in our campus and hope we will find the support in future also for organizing such kind of activities."

#### Feedback from the Participants:

The feedback of the participants was very positive and motivational for the organizers. All the participants appreciated the pick and drop facility, food, lodging and boarding arrangements of the institute. Moreover, all the resource persons were of repute in their respective fields and the knowledge imparted by them was very useful in their forthcoming academic endeavors.

#### Chief Patron

**Shri. S. N. V. L. NARASIMHA RAJU**

President, Children's Education Society  
Chairman, The Oxford Group of Institutions.

#### Patrons

**Dr. AMARNATH. K**

Director, The Oxford Group of Institutions.

**Dr. A. S. ARAVIND**

Principal, The Oxford College of Engineering.

#### Coordinator & Organizing Secretary

**Dr. B. R. RAJU**

Professor & Head, Dept. of Automobile Engineering.

#### ABOUT THE INSTITUTE

The Oxford College of Engineering is one of the most prestigious institutions in Bengaluru that provides quality training in professional education in various streams of engineering (09 UG, 12 PG Programmes & 12 R&D Centers approved by VTU to carryout Ph.D. & M.Sc. Engg. programme.) The college has dedicated and highly qualified team of faculty who offer quality education to the students as per the academic scheme of VTU. The institution is well known for its Consultancy, Research and Development activities and departments have financial assistance from reputed state (VGST/KSCST/VTU) & Central (DRDO-NRB, DAE-BRNS, AICTE, ICMR, NIF) funding authorities to cater to the need of young researchers and students in engineering and management domains.

#### ABOUT THE DEPARTMENT

The Department has well equipped laboratories, well qualified & experience staff. The department is eternally engaged in the academic enrichment of students as well as their overall progress by revealing them to the real problems through Industrial Visits, Projects & guidance through participation in various competitions. The department conducts various value added programs & seminars to enhance students practical knowledge & employability. The Department started with an intake of 60 students along with PG Course (M.Tech) in Automotive Engineering with an intake of 18 students.

The vision of the department is to establish the department as a renowned centre of excellence in the area of scientific education, research with industrial guidance and exploration of the latest advances in the rapidly changing field of Automobile Engineering.

#### ABOUT THE PROGRAM

The Course will be extremely beneficial to teachers, research scholars and practicing engineers those who aspire to update their knowledge in the recent developments taken place in Product design & Manufacturing in Automobile and Machine Tool industries.

#### OBJECTIVES

- To conduct programs to build research, teaching and administration competence for holistic development of individuals.
- To reduce the waste in time, cost, and space in Design and manufacturing environment.
- To create awareness among participants about new tools and techniques used for Product Design & Manufacturing.
- To enhance the knowledge of faculty members in the Automobile, Mechanical and other Engineering disciplines across the country on the latest trends in Product Design and Manufacturing.



#### AICTE - SPONSORED SHORT TERM TRAINING PROGRAMME (STTP) ON

#### "RECENT TRENDS & CHALLENGES FOR NEW PRODUCT DEVELOPMENT"

#### ORGANISED

#### BY

#### DEPARTMENT OF AUTOMOBILE ENGINEERING



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## Organizing Committee:

1. Prof. Sandeep K Chavan, Asst. Professor
2. Prof. Maruthi S B, Asst. Professor
3. Prof. S.B.Desai, Asst. Professor
4. Prof. Shivakumar, M M Asst. Professor

## Contact Details:

**Prof. Sandeep K Chavan** Assoc. Professor

Department of Automobile Engineering,

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✉ [skc.toce@gmail.com](mailto:skc.toce@gmail.com)

☎ +91-8310364667

**Prof. Maruthi S B**, Asst. Professor,

Department of Automobile Engineering,

The Oxford College of Engineering, Bangalore

✉ [maruthi.toce@gmail.com](mailto:maruthi.toce@gmail.com)

☎ +91-9742180785

## Content of the STTP:

- ✦ Concept Initiation
- ✦ Product Visualization & Styling
- ✦ Industrial Design
- ✦ Engineering Ergonomics
- ✦ Rapid Prototyping and Reverse Engineering
- ✦ Robust Design
- ✦ Finite Element Analysis in Product Design
- ✦ Applications of PLM in Product Development
- ✦ Patents & Intellectual Property Rights
- ✦ Reliability Based Design
- ✦ Product Architecture
- ✦ Other Related Topics

## RESOURCE PERSONS

- + Dr. Anamath K, Director, The Oxford Group of Institutions, Bengaluru.
- + Dr. A. S. Aravind, Principal, The Oxford College of Engineering, Bengaluru.
- + Sri. Sadashiva Baligar, Vice-President, Business Development, TOYOTA KIRLOSKAR Auto Parts Pvt Limited, Bengaluru.
- + Sri. S. K. Vijay, General Manager, M/s.TVS Motor Co. Limited, Hosur, Tamil Nadu.
- + Sri. S. Pradeep Kumar, General Manager, M/s. KENNAMETAL, Bengaluru.
- + Sri. T. S. Anandakumar, General Manager, M/s. BOSCH Limited, Bengaluru.
- + Sri. Sridhar Ramakrishna, Head-India Technical Centre, M/s. TENNECO Powertrain, India, Bengaluru.
- + Dr. C. K. Srinivas, Former HOD-Rapid Prototyping, M/s. CMIT, Bengaluru.
- + Dr. S. Seetharamu, Former Director, M/s. CPRI, Bengaluru.
- + Sri. D. R. Kumar, Managing Director, M/s. SKANDA M/c Tools (P) Ltd., Bengaluru.
- + Sri. Chandrashekhara M Tiganahidari, GM, M/s. PNUEMATICA Tech (P) Ltd. Bengaluru.
- + Sri. M. Shivakumar, Managing Partner, M/s. UNIQUE Precisions, Bengaluru.
- + Sri. D. Shankar Prakash, Technical Director, M/s. ROYOTA Engg. Solutions (P) Ltd, Bengaluru.
- + Dr. N.D. Shivakumar, CPDM, IISc, Bangalore.
- + Dr. G.L. Samuel, Professor, IIT, Madras.
- + Dr. A. M. Ravi, Technical Edu. Board, Harihar.
- + Dr. S. M. Kulkarni, NITK, Surathkal.
- + Dr. N.V.R. Naidu, Principal, MSRIT, Bangalore.
- + Dr. Manjunatha, Principal, New Horizon College of Engineering, Bangalore.
- + Dr. K.N. Subramanya, Principal, R. V. College of Engineering, Bengaluru.
- + Dr. Suresha B, Professor and R&D Head, NIE, Mysore.
- + Dr. S.S. Hiremath, Professor, IIT, Madras.

## Mode of Conduction:

STTP will be conducted in 03 different slots through on-line mode using Microsoft Team. The participants have to register and link will be shared for the registered participants.

## Who can Attend:

Faculty members from the AICTE approved institutions, Research scholars and various Government Organizations, Universities and Industry professionals working in the related area can participate in the programme.

## Registration:

Last date for Registration: **2<sup>nd</sup> November 2020**

**No Registration Fee**

Participants have to register by using the below link

<https://forms.gle/evSCrjwC7ThNDk6j8>



## NOTE:

A test shall be conducted by program evaluation committee at the end of the program & the e-certificates shall be issued to those participants who have attended the program & have qualified in the test.

**STTP-2: 2<sup>nd</sup> - 7<sup>th</sup> November, 2020**

**STTP-3: 23<sup>rd</sup> - 28<sup>th</sup> November, 2020**



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**AICTE Sponsored**

**Date:** 02<sup>nd</sup> November, 2020 Inauguration Session

**Short Term Training Programme "Recent Trends & Challenges for New Product Development"**

**Report On**

AICTE Sponsored Short Term Training Programme on "Recent Trends & Challenges For NPD"

**At**

The Oxford College of Engineering, Bengaluru

**STTP-2 FROM 02<sup>nd</sup> November to 09<sup>th</sup> November 2020**

The AICTE STTP on "Recent Trends & Challenges for New Product Development" inaugurated by Dr. K N Subramanya, principal, R V College of Engineering, Bengaluru, as a Chief guest, Dr. Raju BR, FDP Co-ordinator gave welcome speech to all the participants. Total 70 participants had attended the programme and gained the knowledge in the field of New Product Development in which 55 outside participants and 15 internal participants were attended. The sessions were handled by the various subject experts and details of talks are enclosed in the programme schedule. The Lab Session on Data science and Python was handled by Prof. Sandeep Kumar Chavan, Bengaluru on 02<sup>nd</sup> and 09<sup>th</sup> November 2020. The Valedictory function held on 09<sup>th</sup> November 2020 by D Shankar Prakash, Technical Head, Royata Engineering Solutions, Bengaluru was the Chief guest and Dr. G.T Raju, Principal, The Oxford College of Engineering, Bengaluru presided over the function. Dr. Raju BR, STTP Co-ordinator and Prof. Sandeep Kumar Chavan, Event Co-ordinator, Department of Automobile Engineering, The Oxford College of Engineering, Bengaluru has delivered the vote of thanks.





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### AICTE Sponsored

### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

Inaugurated by Dr. K N Subramanya, principal, R V College of Engineering, Bengaluru, as a Chiefguest, followed by Key note address on the Design Thinking Approach to product Development.

**Day-1 & Date:** 12-10-2020

#### Technical Session-1:

**Topic:** Growth Through Innovation and New Product Development

**Resource Person:** Dr. K N Subramanya, Principal, R V College of Engineering, Bengaluru. The first technical session was started with formal welcome note by Dr. Raju B R, FDP Co-ordinator, Professor and Head, Department of Automobile Engineering. The resource person of this session, **Dr. KN Subramanya**, started his discussion with detail description on challenges in the product development process in the various industries like automobile, machine tools, etc. He gave brief overview of manufacturing process in Toyota Production System (TPS). He further added that if faculty wants to develop themselves and their students, then attending such faculty development programs would enhance their skills of teaching the practical concepts. He ended the discussion with the quotation: "Win India, Win the World" The session was ended with the vote of thanks given by Dr. Raju B R, Professor and Head, Department of Automobile Engineering, The Oxford College of Engineering.





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#### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

##### Technical Session-2:

**Topic:** Innovation and creativity for NPD

**Resource Person:** Dr. RajuBR, HOD, Department of Automobile Engineering, TOCE, Bengaluru Has given talk on Product development is the set of activities beginning with the perception of a market opportunity and ending in the production, sale, and delivery of a product. He addresses Characteristics of Successful Product Development and also the explicitly focus on products that are engineered, discrete, and physical.

At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.

# "Everything is Design"

Tool for  
Expression of self



Tom Peters



## WHAT IS DESIGN





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## Technical Session-3:

**Topic:** Dr. Raju B R

**Resource person:** Dr. Raju B R, HOD, Department of Automobile Engineering, TOCE

Welcome note was presented by Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, He started Composites are light in weight when compared to woods and metals. It consists of two or more distinct phases such as matrix phase and a dispersed phase. Metal matrix composites are expensive and limitations in achieving stiffness and toughness for materials to overcome these limitations, hybrid metal matrix composites (HMMC's) are fabricated and designed. In recent years hybrid metal matrix composites (HMMC's) play a vital role especially in material science in the field of aerospace, marine, transportation, military and structural applications. Aluminium (Al) based metal matrix hybrid composites are used extensively in the field of automotive industries due to its low density and high strength-to-weight ratio. At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.

**Properties of composite materials**

- ❖ High strength at low weight.
- ❖ Good impact, compression and fatigue.
- ❖ Cost-effective manufacturing processes.
- ❖ Excellent chemical and corrosion resistance.
- ❖ Good abrasion resistance.

**Applications of composite materials**

- ❑ **Construction:** Bathtubs, shower stalls and floors etc.
- ❑ **Marine:** Ski boats, fishing boats, sail boats etc.
- ❑ **Transportation:** Automobile body panels and structural components etc.
- ❑ **Consumer:** Sporting goods, decorative art etc.
- ❑ **Electrical:** Housing appliances, circuit boards, insulating boards etc.

Dr. Raju B R, Dept. of Automobile, TOCE 10/12/2020



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### Short Term Training Programme "Recent trends & Challenges for new product development"

**Day 4:** Technical session-4:

**Topic:** Internet of Things

**Resource Person:** Dr. Shanmukha Nagaraj, Professor RVCE Bangalore

Has given technical talk on Internet of Things have evolved due to the convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems. Traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), and others all contribute to enabling the Internet of things. In the consumer market, IOT technology is most synonymous with products pertaining to the concept of the "smarthome", including devices and appliances (such as lighting fixtures, thermostats, home security systems and cameras, and other home appliances) that support one or more common ecosystems, and can be controlled via devices associated with that ecosystem, such as smart phones and smart speakers. IOT can also be used in healthcare systems.





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## Technical session-5:

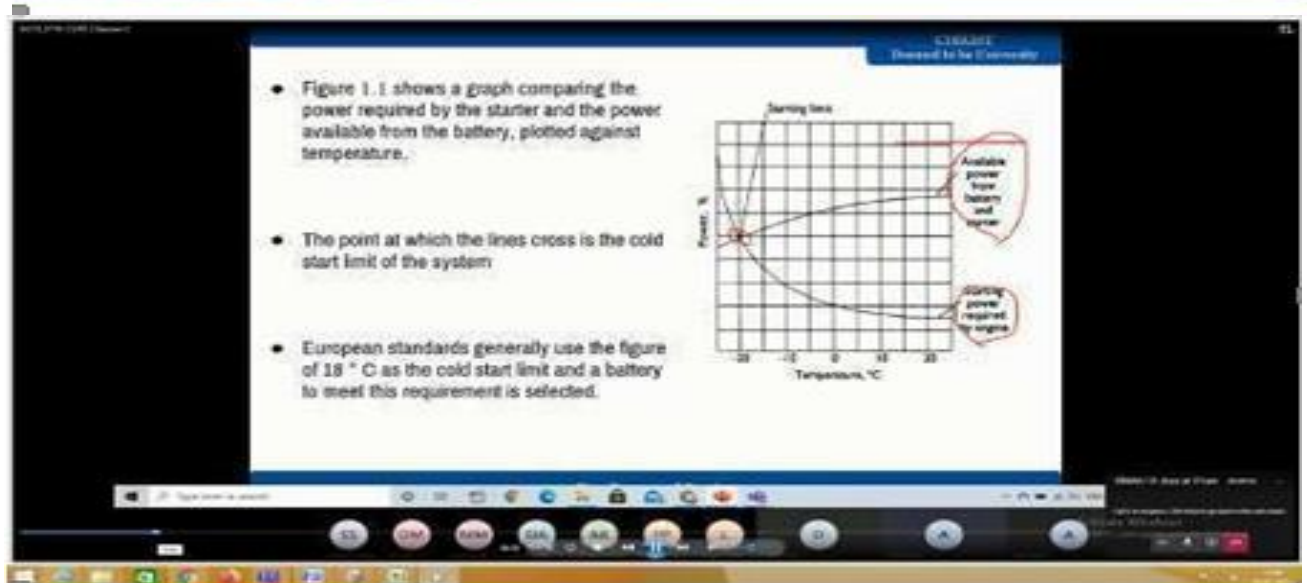
**Topic:** Innovation in Future Batteries

**Resource Person:** Harish Kumar M, Associate Professor, Christ University Bangalore.

Mr. Sandeep Kumar Chavan Associate Professor, Dept of Automobile Engg, welcomes their source person and the delegates of the session. Has given overview of Batteries and their functions.

Resource person has delivered the technical talk on the present trends of Batteries and their importance towards the Electric Vehicles. **Battery technology** is expected to evolve from the current lithium-ion **battery** (LIB) to **next-generation** high capacity LIBs, all solid-state **batteries**, and lithium metal-based **batteries**, resulting in improvements in energy density, safety, and **battery** lifespan, as well as a reduction in cost.

At the end of the session, Mr. Maruthi SB, Assistant Professor, Dept of Automobile Engg, delivered a vote of thanks to the resource persons and all the participants.





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## AICTE Sponsored

### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

#### Technical session-6:

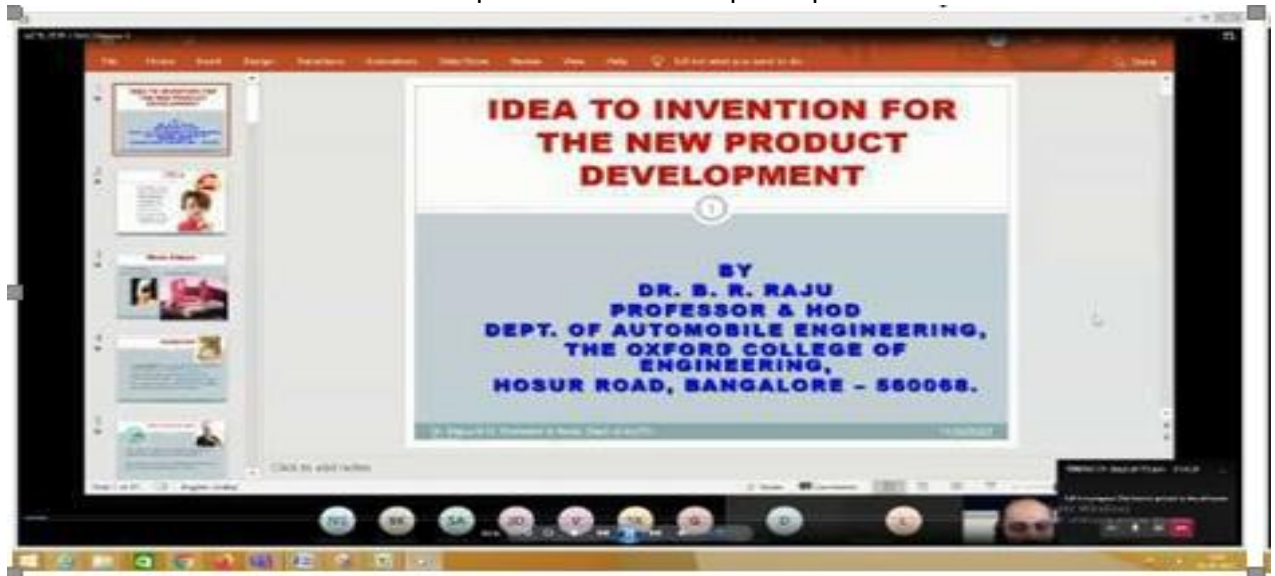
**Topic:** Idea to invention for the NPD

**Resource Person:** Mr. Sandeep K Chavan, Associate Professor, TOCE, Bengaluru

Mr. Sandeep Kumar Chavan Associate Professor, Dept of Automobile Engg, welcomes the resourceperson and the delegates of the session.

India is a country with a great tradition for innovation, creativity and entrepreneurship. There are several legendary examples of innovation which can easily be cited. Innovation of zero and positional number system several schools of logic and knowledge representation, etc.

At the end of the session, Mr. Maruthi SB, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.





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**Day-3 & Date:** 04-11-2020

**Technical session-7:**

**Topic:** Challenges in New product development

**Resource Person:** Mr. Vinay Vittal, Project Manager, RBEI, Bangalore

As a resource person of the session, highlighted There is more than one reason why companies should create new products. Developing quality new engineering products consistently and having a strong hold in your nichemarket is one of the most powerful but difficult activities in business (Clark and Wheelwright 1995). 75% of new product developments fail, which shows how challenging it can be for the new engineering product design team to succeed. Product designers face various challenges during the development cycle, however, not all of them are technical. Some of the challenges are due to external factors such as cost, economic changes, competitor influence, company policy etc.

**Vinay Vittal R**  
Program Manager, RBEI  
Bangalore

Education : M.B.A. in Project Management, B.E. (E & C)

IT Experience : 26+ Years

Eng College Lecturer : 1 year

Corporate Trainer : 5 years

Worked in Stuttgart, Germany for 3 Years

Verticals : I&D, IoT, AI/ML, Project Mgmt, Product Mgmt, Programs Mgmt

Customer Regions : US, UK, Germany, Middle East

Certification : Six Sigma, CSM

Interest : Entrepreneurship

Hobbies : Cricket, Badminton, Puzzle Solving, Chess

**STTP Program : Recent Trends & Challenges for New Product Developments**

□ According to Robert Cooper, the **major causes for new product failure** are:  
inadequate market analysis, product defects, lack of effective marketing effort,  
higher costs than anticipated and competitive reaction





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## Technical session-8:

**Topic:** Investigation of Mechanical properties on Hybrid fiber with filler material.


**Resource Person:** Mr. Shivakumar MM, TOCE, Bengaluru

The third day technical session-8 was started with **Shivakumar MM**. He briefed the "Compositematerial is material made from two or more constituents' materials with significantly different physical or chemical properties" when combining these two materials to form composite. Now a days the composite material is consuming more in all branches of engineering because of unique pattern of properties follows, Improved fatigue, toughness and Stiffness. High corrosion resistance and antifriction properties. It has well durability and low maintenance cost compare with other conventional materials.



### Product

- Prod :- poke with finger foot or POINTED object.
- Duct :- SPACE for FLOW.



- Product should poke the flow of problem and stop or filter the cause.
- Product cant be POINTLESS
- Problem FLOW has SPACE to rectify or nullify.



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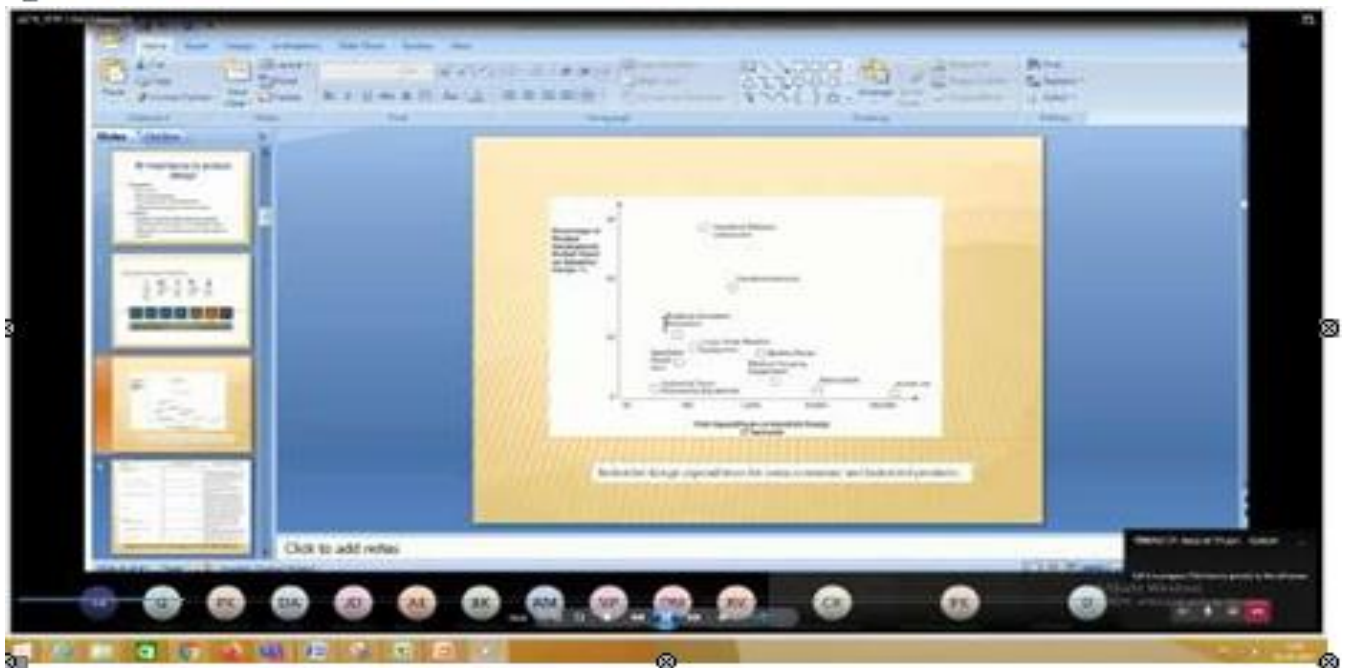
### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

#### Technical session-9:

**Topic:** Impact of Industrial Design on New Product Development

**Resource Person:** Mr. Sandeep K Chavan, Asso Professor, TOCE, Bengaluru

The last session of the day was Headed by Prof. Sandeep K Chavan. He started with the History of several millennia before the on set of industrial design, technical expertise and manufacture lay together in the hands of individual craftsmen, who determined the form of a product at the point of its creation according to their own manual skill, the parameters set by their clients, the experience accumulated through their own experimentation and traditional knowledge passed on to them through training or apprenticeship.



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## Short Term Training Programme “Recent Trends & Challenges for New Product Development”

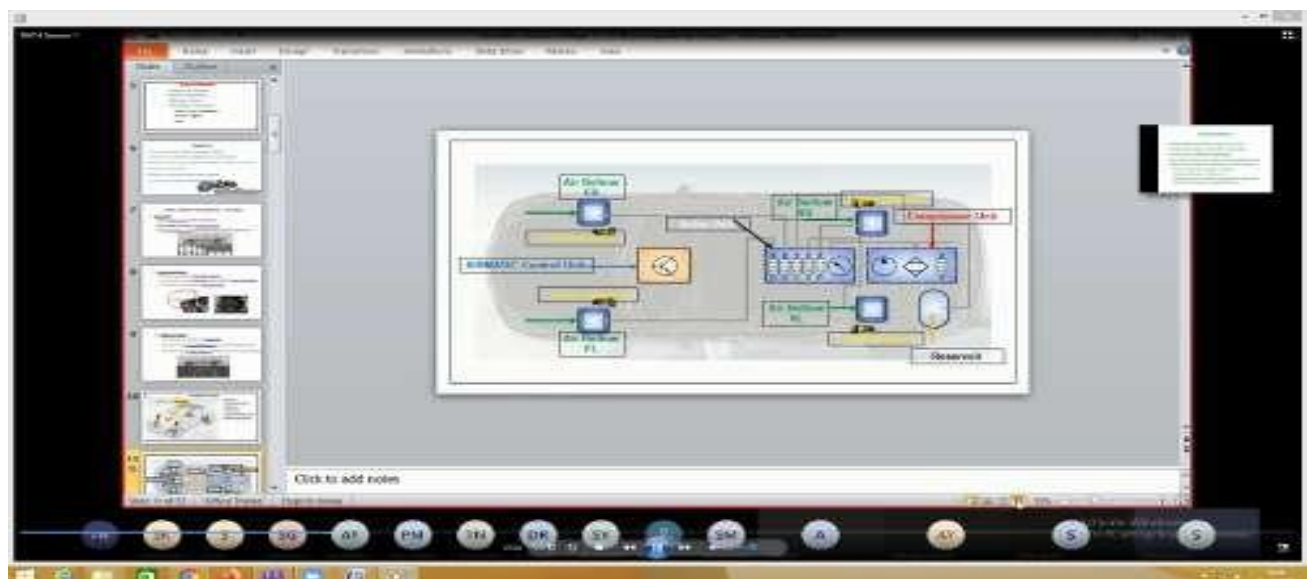
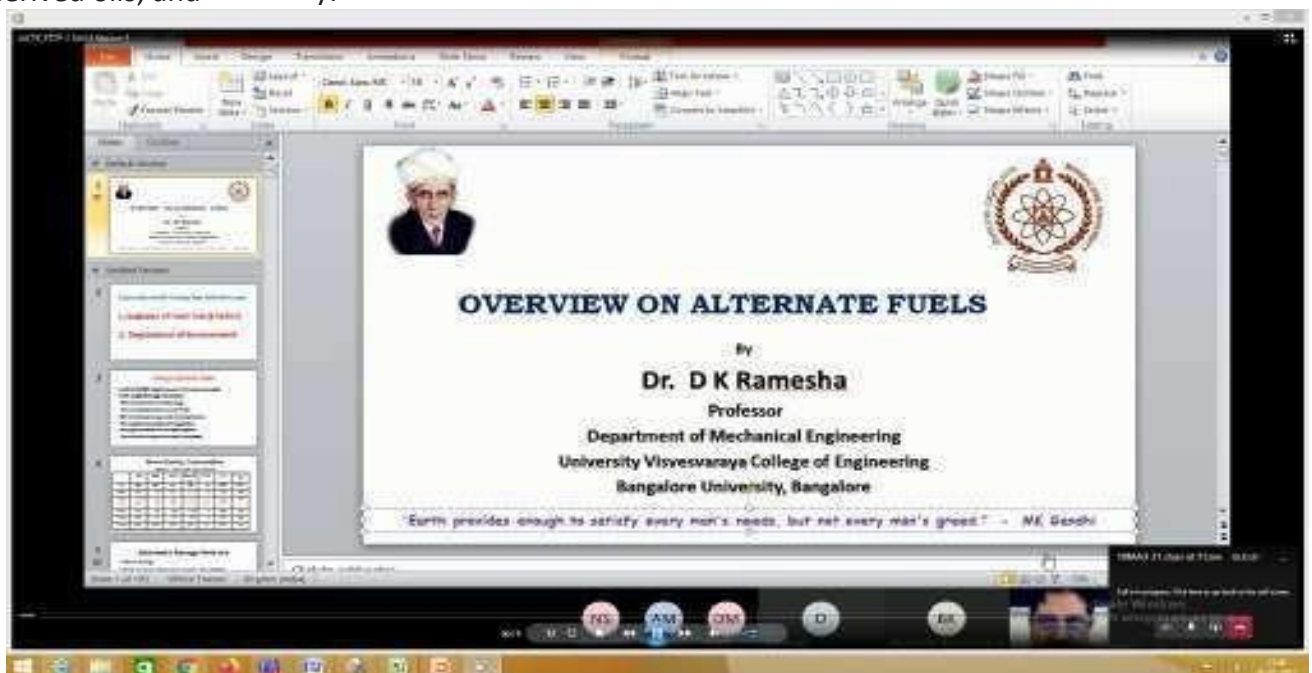
**Day-4 & Date: 05-11-2020**

## Technical session-10:

## Topic: Overview on Alternative Fuels

**Resource Person:** Dr. D K Ramesh, Dept of Mechanical Engg. UVCE, Bengaluru

He started the session with the basics of Most of the alternative fuels have properties similar to those of the existing fuels, and there fore the technology required to handle them is already wellknown. Hydrogen is an exception to this, and it sign it on properties are quite different from those of the conventional fuels. Alternative fuels include gaseous fuels such as hydrogen, natural gas, and propane; alcohols such as ethanol, methanol, and butanol; vegetable and waste-derived oils; and electricity.







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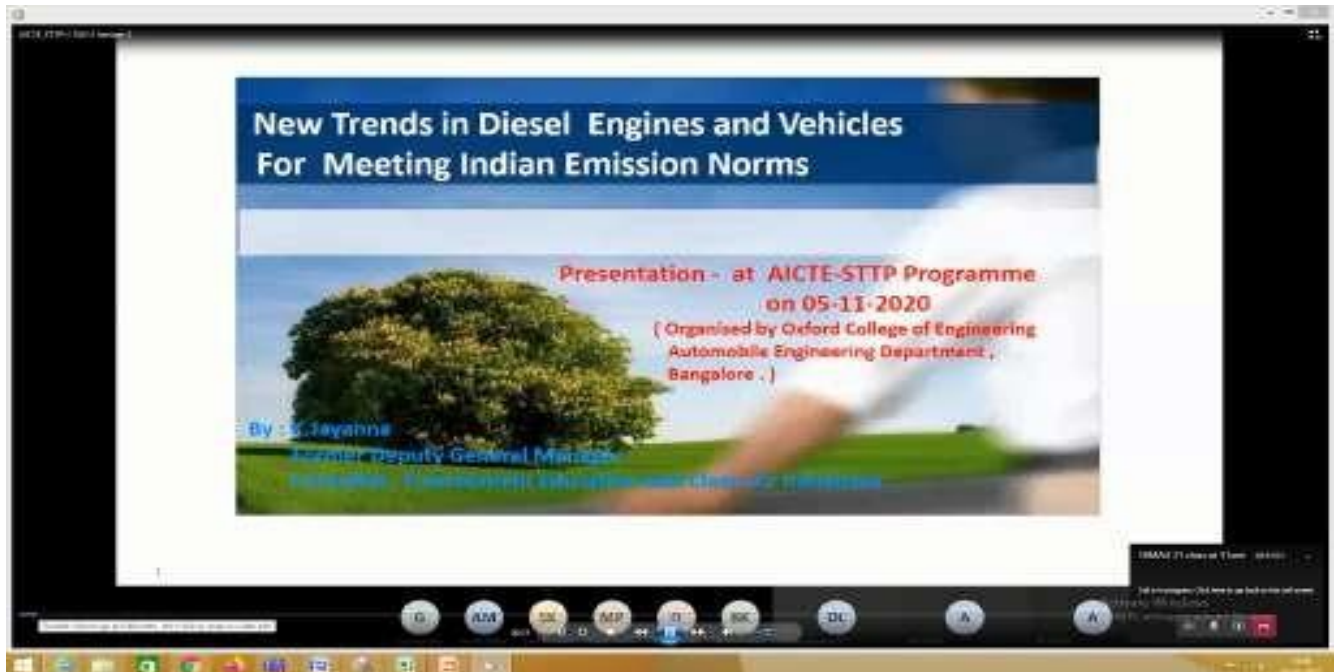
### Technical session-11:

**Topic:** New Trends in Diesel Engines/vehicles for meeting Indian Exhaust gas Emission Norms

**Resource Person:** Sri. K. Jayanna, Former- Executive, Bosch Ltd. R & D, Department, Bangalore

Mr. Sandeep k chavan welcomed the resource person and delegates of the 11th technical session.

Technical session was started by Dr. Girisha C He started his discussion with the various multivariate techniques, their need and importance in quality parameters in production process.





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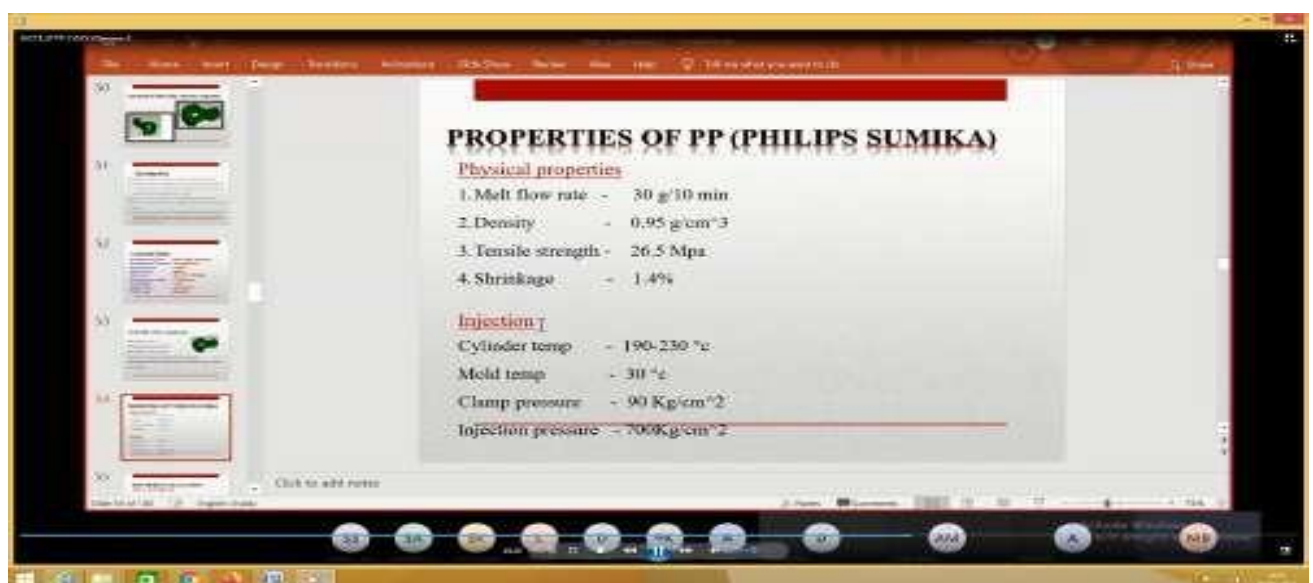
### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

#### Technical session-12:

**Topic:** New Product Development in Automotive Industries

**Resource Person:** Mr. Maruthi S B, TOCE, Bengaluru

Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, welcomes the resource person and the delegates of the session. Resource person of the technical session, Prof. Maruthi S B discussed in detail importance of NPD in the present generation and also said that product opens an entirely new market, product that adopts or replaces an existing product that significantly broadens the market or an existing product old product introduced in a new market old product packaged in a different way.





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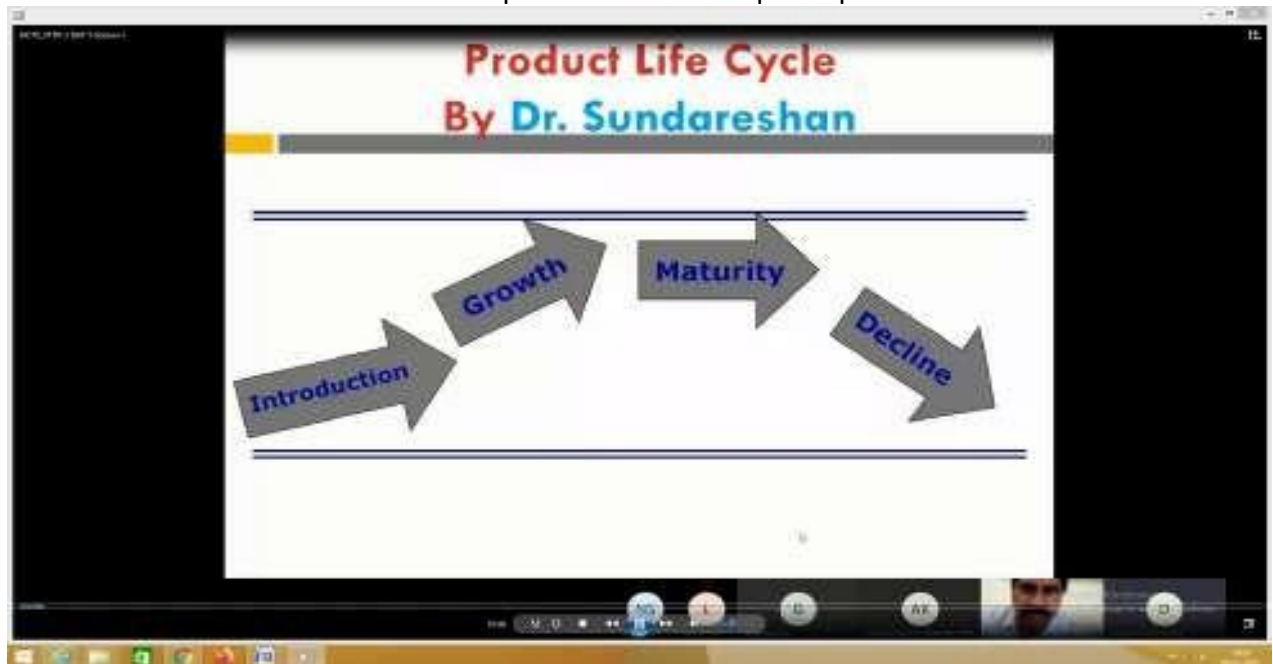
## Day 5 Technical session-13:

**Topic:** Product Life Cycle

**Resource Person:** Dr. Sundereshan S D, Visiting Faculty, Bengaluru

In the Fifth day's technical session, welcome note was presented by Dr. Raju.B. R Professor & Head, Dept, of Automobile Engg, Dr. Sundereshan, as a resource person of the session, started his discussion with the basic idea of Process optimisation of manufacturing process and gave brief discussion on adaptive and smart manufacturing. He deeply explained what is Applied Engineering and its commercial business strategies.

At the end of the session, Mr. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants.



- Product Modification:**
  - Changing a product's characteristics
    - package, features, appearance, quality(Ex-Dual fuel to cars)
  - Companies market this "new" product to increase sales
- Market Modification:**
  - Strategy to find new customers
    - Modify the product to create new target market
  - Encourage current customers to use the product more
- Repositioning:**
  - Change product's image in relation to competitor's image
  - A change in any of the 4 P's (Marketing Mix-Product, Place, Price & promotion.





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### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

#### Technical session-14:

##### Topic: V2X Communications

**Resource Person:** Dr. B N Manjunath Reddy, Professor, Dept of E&C, GAT., Bengaluru

Prof. B Dr. B N Manjunath Reddy, Professor has begun his talk by explaining V2X, stands for 'vehicle to everything', is the umbrella term for the car's communication system, where information from sensors and other sources travels via high-bandwidth, low-latency, high-reliability links, paving the way to fully autonomous driving. V2X communication systems are mainly used for the purpose of increasing safety. In a traditional vehicle, V2X system can convey important information to the driver regarding inclement weather, nearby accidents, road conditions, and the dangerous activities of nearby vehicles and preventing collisions

Mr. Maruthi SB, Assistant Professor, Dept, of Automobile Engg, ended the session with vote of thanks to the resource person and the delegates.





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### Technical session-15:

**Topic:** Trends & Challenges in NPD.

**Resource Person:** Dr. Amardeepak. M Professor, Dept. of ME, Cambridge Institute of Technology.

Dr. Amardeepak, Professor discussed in detail importance Design and Development of Tooling's in HardChromewhitelronandtheintegrationofproduct designandprocessplanningintoonecommonactivity. The goal is to design a product that is easily and economically manufactured and explained theMachined Part Design Guidelines, Elements of the Manufacturing Cost of a Product

The screenshot displays a video conference window. At the top, a navigation bar contains three circular icons labeled 'NS', 'A', and 'L'. The main area shows a presentation slide titled "Improving New-Product Success". The slide content is as follows:

- New-product success depends on having a:
  - Unique superior product (one with higher quality, features, and value in use), and a
  - Well-defined product concept (a defined target market, product requirements, and benefits).
- To create successful new products, the company must:
  - understand its consumers, markets, and competitors, and
  - develop products that deliver superior value to customers.

The video interface includes a bottom bar with several circular icons representing participants. Below the video window, a Windows taskbar is visible with various application icons and the system clock showing 2:28 PM on 22/07/2020.



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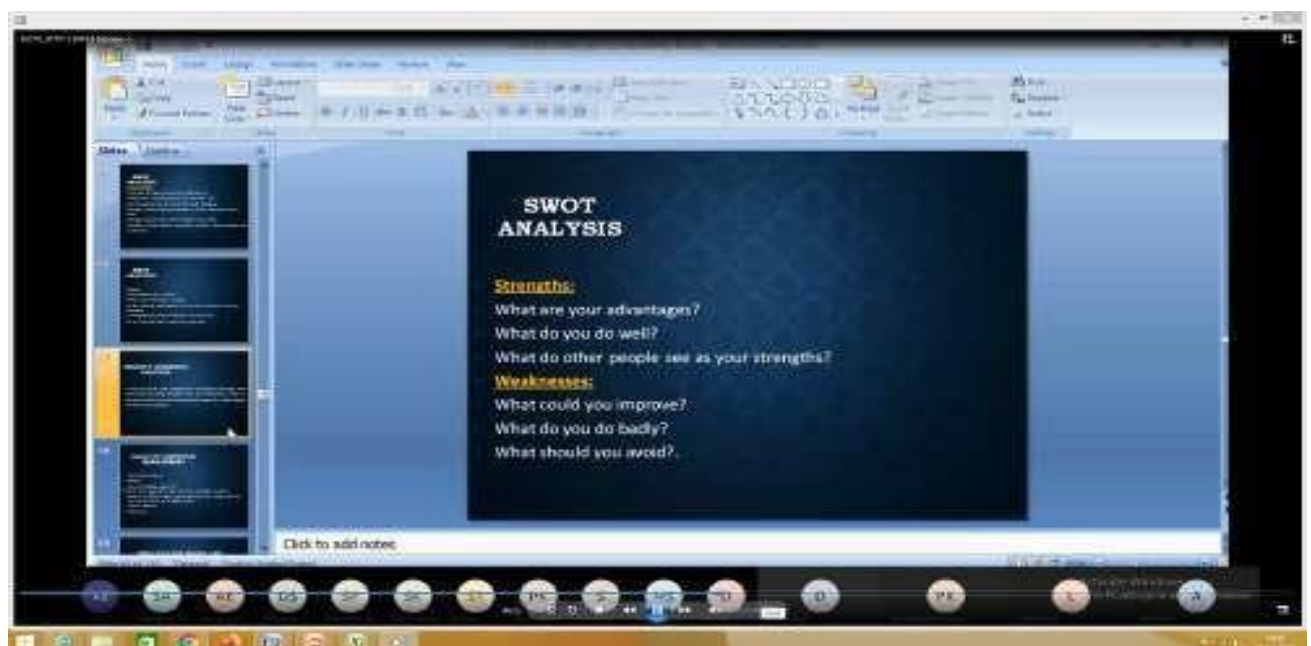
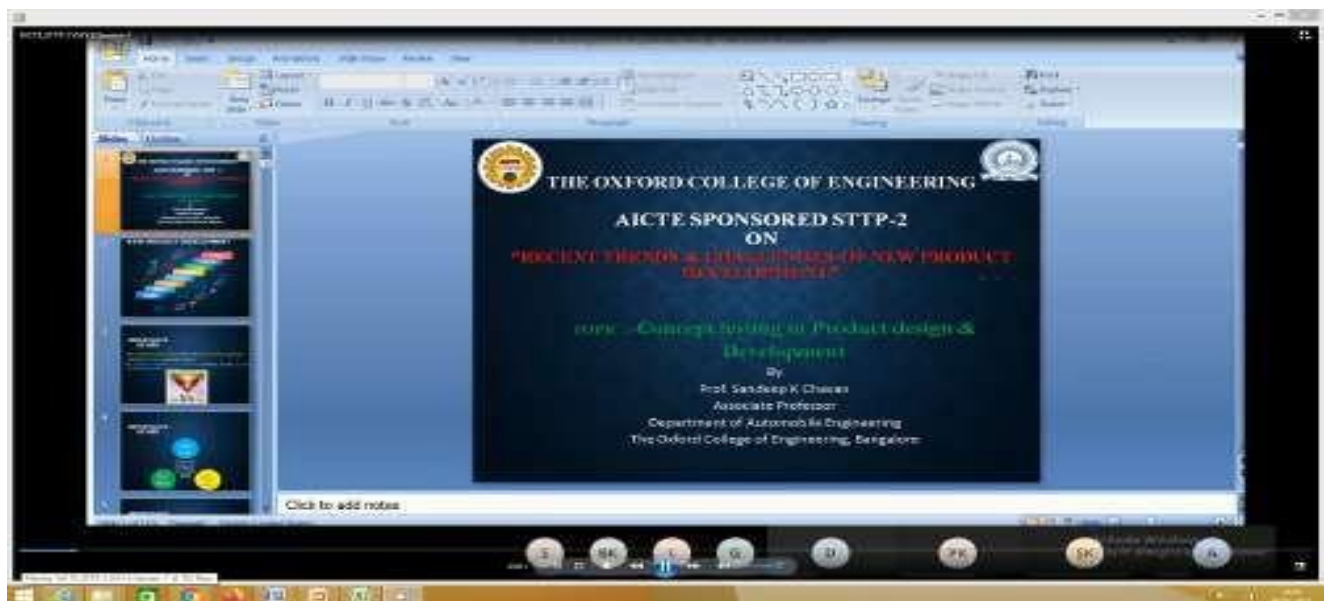
Day-6 & Date: 17-10-2020

Technical session-16:

Topic: **Concept Testing in Product Design and Development.**

Resource Person: Mr. Sandeep K Chavan, Asso Professor, TOCE, Bengaluru.

Mr Sandeep K Chavan, Professor discussed in detail research has shown that 40% of new consumer products, 20% of new industrial products and 18% of new services related products have failed completely as products. To avoid development of a new product that will not be a success in a market and to minimize the costs of such a development a NPD Roadmap can be used, through a series of logical steps, starting from the process of idea generation and ending at the launch of the product into a market.







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**Technical session-17:**

**Topic:** Need for Newer Manufacturing Technologies for Product Development.

**Resource Person:** Dr. M S Ganesha Prasad Dean, Prof & Head Dept. of Mechanical Engg, NHCE

Dr. Ganesh Prasad, Professor discussed the improvements and influence of real-world performance, Computer aided engineering simulation allows engineers to see in to the future, predicting the consequence of any design change on the real-world performance of their products Deployed effectively, it can be used to improve our design through multiple iterations, providing data to guide the design process from its earliest stages, through to production and beyond.

**Valedictory Function:**

On the valedictory ceremony, Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., Bangalore join the session as a chief guest, along with Dr. R Nagaraj, Director of The Oxford Group of Institutions, Bangalore, Dr. R J Anandhi, Vice Principal, The Oxford College of Engineering, Bangalore, Dr. Raju BR, FDP Coordinator, Professor and Head, Department of Automobile Engineering, Dr. N B Doddapattar, Prof & Head, Dept of Mechanical, TOCE, Bangalore

On this occasion, Dr. R Nagaraj, Director of The Oxford Group of Institutions in his address, appreciates Dr. Raju B R, FDP Coordinator along with her team, for successful completion of the program.

Dr. Raju B R, FDP Coordinator, welcomes, Dr. Y Vijaya Kumar Principal, Sai Ram College of Engg., chief guest of the valedictory ceremony and resource person of the session along with advisory board, media persons and all the dignitaries and delegates presented on valedictory session.

At the end, the valedictory session was concluded with a vote of thanks given by Mr. Sandeep Kumar KChavan, Assistant Professor, Dept, of Automobile Engg, in which he has been paid his gratitude towards all the dignitaries who have spared their time and come from a far distance places to share their expertise with the participants. He has also thanked the media persons for their continuous coverage of the entire programme.

Nevertheless, he has given thanks to sponsoring body of this FDP i.e. AICTE with these words, "We are highly thankful to the AICTE for providing financial assistance to organize this FDP in our campus and hope we will find the support in future also for organizing such kind of activities."



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### Short Term Training Programme "Recent Trends & Challenges for New Product Development"

#### Feedback from the Participants:

The feedback of the participants was very positive and motivational for the organizers. All the participants appreciated the pick and drop facility, food, lodging and boarding arrangements of the institute. Moreover, all the resource persons were of repute in their respective fields and the knowledge imparted by them was very useful in their forthcoming academic endeavors.



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Dr. G.T. RAJU

Principal,  
The Oxford College of Engineering.

### Coordinator & Organizing Secretary

Dr. B. R. RAJU

Professor & Head,  
Dept. of Automobile Engineering.

### ABOUT THE INSTITUTE

The Oxford College of Engineering is one of the most prestigious institutions in Bengaluru that provides quality training in professional education in various streams of engineering (09 UG, 12 PG Programmes & 12 R&D Centers approved by VTU to carryout Ph.D. & M.Sc. Engg. programme.) The college has dedicated and highly qualified team of faculty who offer quality education to the students as per the academic scheme of VTU. The institution is well known for its Consultancy, Research and Development activities and departments have financial assistance from reputed state (VGST/KSCST/VTU) & Central (DRDO-NRB, DAE-BRNS, AICTE, ICMR, NIF) funding authorities to cater to the need of young researchers and students in engineering and management domains.

### ABOUT THE DEPARTMENT

The Department has well equipped laboratories, well qualified & experience staff. The department is eternally engaged in the academic enrichment of students as well as their overall progress by revealing them to the real problems through Industrial Visits, Projects & guidance through participation in various competitions. The department conducts various value-added programs & seminars to enhance students' practical knowledge & employability. The Department started with an intake of 60 students along with PG Course (M.Tech.) in Automotive Engineering with an intake of 18 students.

The vision of the department is to establish the department as a renowned centre of excellence in the area of scientific education, research with industrial guidance and exploration of the latest advances in the rapidly changing field of Automobile Engineering.

### ABOUT THE PROGRAM

The Course will be extremely beneficial to teachers, research scholars and practicing engineers those who aspire to update their knowledge in the recent developments taken place in Product design & Manufacturing in Automobile and Machine Tool industries.

### OBJECTIVES

- To conduct programs to build research, teaching and administration competence for holistic development of individuals.
- To reduce the waste in time, cost, and space in Design and manufacturing environment.
- To create awareness among participants about new tools and techniques used for Product Design & Manufacturing.
- To enhance the knowledge of faculty members in the Automobile, Mechanical and other Engineering disciplines across the country on the latest trends in Product Design and Manufacturing.



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ON

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ORGANISED

BY

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### Organizing Committee:

- Prof. Sandeep K Chavan, Asst. Professor
- Prof. Maruthi S B, Asst. Professor
- Prof. S.B.Desai, Asst. Professor
- Prof. Shivakumar, M Asst. Professor

### Contact Details:

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Prof. Maruthi S B, Asst. Professor,  
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### Content of the STTP:

- Concept Initiation
- Product Visualization & Styling
- Industrial Design
- Engineering Ergonomics
- Rapid Prototyping and Reverse Engineering
- Robust Design
- Finite Element Analysis in Product Design
- Applications of PLM in Product Development
- Patents & Intellectual Property Rights
- Reliability Based Design

### Resource Persons:

- Dr. Amarnath. K, Director, The Oxford Group of Institutions, Bangalore.
- Dr. G.T.Raju, Principal, The Oxford College of Engineering, Bangalore.
- Sri.Sadashiva Baliga, Vice-President, Business Development, Toyota Kirloskar Auto Parts Pvt.Ltd.
- Sri. S. K. Vijay, General Manager, M/s.TVS Motor Co. Limited, Hosur, T.N
- Sri. S. Pradeep Kumar, General Manager, M/s. KENNAMETAL, Bengaluru.
- Sri. T. S. Ananda Kumar, General Manager, M/s. BOSCH Limited, Bengaluru.
- Sri.Shridhar Ramakrishna, Head-India Technical Centre, M/s. TENDCO Powertrain, Bengaluru.
- Dr. C. K Srinivas, Former HQD-Rapid Prototyping, M/s. CHIT, Bengaluru.
- Dr. S. Seetharamu, Former Director, M/s. CPRI, Bengaluru.
- Sri. D. R. Kumar, Managing Director, M/s. Skanda M/c. Tools (P) Ltd., Bengaluru.
- Sri. M. Shivakumar, Managing Partner, M/s. Unique Precisions, Bengaluru.
- Sri.D.Shankar Prakash Technical Director Royota engineering Solutions Pvt.Ltd
- Dr.N.D.Shivakumar, CPDM, ISC, Bengaluru.
- Dr. G.L.Samuel, Professor, IIT, Madras.
- Dr.S.S. Hiremath, Professor,IIT, Madras.
- Dr. S. M. Kulkarni, NITK, Surathkal
- Dr. K. V. Anun, H.O.D Dept of Mechanical Engineering, Govt Engineering College, Haveri
- Dr.M.V.R.Naidu,Principal,MSRT, Bengaluru.
- Dr.Manjunath, Principal, New Horizon college of engineering, Bengaluru.
- Dr. Rana Pratap Reddy, Principal, Global Academy of Technology, Bengaluru.
- Dr. Suresha. B Professor, R&D Head NIE, Mysore.

### Mode of Conduction:

STTP will be conducted in 03 different slots through on-line mode using Microsoft Team. The participants have to register and link will be shared for the registered participants.

### Who can Attend:

Faculty members from the AICTE approved institutions, Research scholars and various Government Organizations, Universities and Industry professionals working in the related area can participate in the programme.

### Registration:

Last date for Registration: 6th

December 2020

No Registration Fee

Participants have to register by using the below link

<https://forms.gle/Hy3XCBUUtdM8Pef7>



### NOTE

A test shall be conducted by program evaluation committee at the end of the program & the e-certificates shall be issued to those participants who have attended the program & have qualified in the test.

### IMPORTANT DATES:

STTP -1: 12th -17th October, 2020

STTP -2: 2nd -7th November, 2020

STTP -3: 7th -12th December, 2020





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**AICTE Sponsored**

**Short Term Training Programme "Recent Trends & Challenges for New Product Development"**

**Report On**

AICTE Sponsored Short Term Training Programme on "Recent Trends & Challenges For NPD"

**At**

The Oxford College of Engineering, Bengaluru

**STTP-3 FROM 23rd November to 28<sup>th</sup> November 2020**

The AICTE STTP on "Recent Trends & Challenges for New Product Development" inaugurated by Dr. Manjunatha, principal, New Horizon College of Engineering, Bengaluru, as a Chief guest, Dr. Raju BR, FDP Co-ordinator gave welcome speech to all the participants. Total 70 participants had attended the programme and gained the knowledge in the field of New Product Development in which 55 outside participants and 15 internal participants were attended. The sessions were handled by the various subject experts and details of talks are enclosed in the programme schedule. The Lab Session on Data science and Python was handled by Prof. Sandeep Kumar Chavan, Bengaluru on 02<sup>nd</sup> and 09<sup>th</sup> November 2020. The Valedictory function held on 09<sup>th</sup> November 2020 by DShankarPrakash, Technical Head, Royata Engineering Solutions, Bengaluru was the Chief guest and Dr. G. T Raju, Principal, The Oxford College of Engineering, Bengaluru was presided over the function. Dr. Raju BR, STTP Co-ordinator and Prof. Sandeep Kumar Chavan, Event Coordinator, Department of Automobile Engineering, The Oxford College of Engineering, Bengaluru has delivered the vote of thanks.

Date: 07<sup>th</sup> December, 2020 Inauguration Session

Inaugurated by Dr. Manjunatha, principal, New Horizon College of Engineering, Bengaluru, as a Chief guest, followed by Key note address on Patents and Intellectual Property Rights.



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**Short Term Training Programme "Recent Trends & Challenges for New Product Development"**

**Day-1 & Date: 07-12-2020**

**Technical Session-1:**

Topic: Patents and Intellectual Property Rights

**Resource Person: Dr. Manjunatha, Principal, New Horizon College of Engineering, Bengaluru.** The first technical session was started with formal welcome note by Dr. Raju B R, FDP Co-ordinator, Professor and Head, Department of Automobile Engineering. The resource person of this session, **Dr. Dr. Manjunatha**, started his discussion with detail description Intellectual property rights are the rights given to each and every person for the creations of new things according to their minds. IPR usually give the creator a complete right over the use of his/her creation for a certain period of time. *"Win India, Win the World"* The session was ended with the vote of thanks given by Dr. Raju B R, Professor and Head, Department of Automobile Engineering, The Oxford College of Engineering





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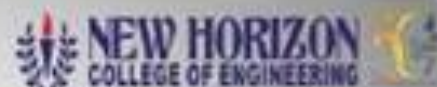
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## **PATENTS AND INTELLECTUAL PROPERTY RIGHTS**

### **Copyright and Related Rights**

#### **Ownership of Rights**

- *Literary – author*
- *Drama – Dramatist*
- *Music – Composer*
- *Artistic work – Artist e.g. Painter, sculptor, architect*
- *Photograph – Photographer*
- *Author of Computer Programme – Person who causes the work to be created*
- *Cinematograph film – producer*
- *Sound Recording - producer*





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**Technical Session-2:**

**Topic:** Manufacturing of Micro Product and Challenges

**Resource Person:** Dr. G L Samuel, Professor, Department of Mechanical Engineering, IIT, Madras Has given talk on The modern micro/nano technology (MNT) challenges require new engineering knowledge and skills. In micro-engineering and micro-systems technologies most of the product developments are material or process centred. However, most of the available engineering materials for MNTs and Micro- Electro-Mechanical systems (MEMS) processes will not be able to meet the manufacturing demands for 3D high-aspect-ratio nano/micro structures and high precision. Thus, to broaden the range of micro-engineering products the introduction of new specific materials is necessary as well as study of the process capabilities that are reasonably compatible with the batch-fabrication

At the end of the session, Ms. Sandeep K Chavan, Assistant Professor, Dept, of Automobile Engg, delivered vote of thanks to the resource persons and all the participants



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**Communication Skill Training**



Children's Education Society

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Hosur Road, Bommanahalli, Bangalore -560068

**Department of Electrical & Electronics Engineering**

Organizing

**Communication Skills Training**



ON

**19<sup>th</sup> March 2021**

by

**Dr Tharaka Rami Reddy**

Professor /Dept of MBA

The Oxford College of Engineering



Venue :6<sup>th</sup> Floor Seminar Hall

Time :10AM

**Chief Patron**

**Sri S.N.V.L Narasimha Raju**

**President**

The Oxford Educational Institutions

**Convener**

**Dr Bharath V S**

**HOD/EEE**

The Oxford College of  
Engineering

**Prof. Nisha C Rani ,**

**Prof Resna S R**

**Assistant Professor**

The Oxford College of  
Engineering



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**Report Communication Skill Training**

**Date:** 19.03.2021

The Oxford College of Engineering organized a one-day workshop on "**Communication Skill Training**" on 19 March 2021 at 5th floor new building. The main objective of this programme is to aware the participants about improving one's ability to clearly transmit his or her message, improving the skills to understand better messages from other people and to witness actual applications and demonstration of the principles of effective communication. After that regarding various issues, problems being faced while working due to lack of communication and how to cope up with it is discussed by Prof. Tharaka Rama Reddy, Department of MBA, The Oxford College of Engineering, Bengaluru resolved the queries asked by the employees. Discussion Session was quite interesting & helpful to resolve many doubts of the participants. 38 participants attended the program.





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**Sanitization of Surroundings During Covid Pandemic for Attenders and Sweepers**

**Children's Education Society**

**THE OXFORD COLLEGE OF ENGINEERING**

**Hosur Road, Bommanahalli, Bangalore-560068**

**"SANITIZATION OF SURROUNDINGS  
DURING COVID PANDEMIC FOR  
ATTENDERS AND SWEEPERS"**

**Academic Year 2020-2021**

**Date : 15<sup>th</sup> Jan 2021**

**Venue: 6<sup>th</sup> Floor Seminar Hall**

**Time : 10:00AM**

**New Building, TOCE**



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Approved by AICTE, New Delhi & Affiliated to VTU Belagavi

Organizes a 1 day Add-on certificate program on

**AWARENESS PROGRAMME ON**

**"SANITIZATION OF SURROUNDINGS DURING  
COVID PANDEMIC FOR ATTENDERS AND  
SWEEPERS"**

CHIEF PATRON

**Shri.S.N.V.L.NarasimhaRaju**

President, The Oxford Educational Institutions

**Conveners**

**Dr. B. R. RAJU**  
Professor & HOD,  
Department of Automobile

**Dr. SHASHIDHARA M S**  
Professor & HOD  
Department of MCA

**Faculty Coordinators**

**Prakash N**

**Shivananad C G**

Assistant Professors,  
Department of Civil Engineering



DATE	TIME	TOPIC	SPEAKER
15 <sup>th</sup> January 2K21	10.00am To 12.30pm	Safe by taking some simple precautions, such as physical distancing, wearing a mask, keeping rooms well ventilated, avoiding crowds, cleaning your hands, and coughing into a bent elbow or tissue.	Dr. Raju HOD Department of Automobile The Oxford College of Engineering, Bangaluru
15 <sup>th</sup> January 2K21	1.30pm To 3.00pm	Symptoms of COVID 19	Dr. M.S Shashidhara Prof & HOD Department of MCA The Oxford College of Engineering, Bangaluru



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**Report**

The Oxford College of Engineering organized a one-day workshop on "Sanitization of surroundings during COVID Pandemic for Attenders and Sweepers" on 15 January 2021 at the Seminar Hall 5th floor New Building. The main objective of this programme is to aware them about Safe by taking some simple precautions, such as physical distancing, wearing a mask, keeping rooms well ventilated, avoiding crowds, cleaning hands, and coughing in to a bentelbowor tissue and Symptoms of COVID 19 with employees. After that regarding various issues, problems being faced while working and how to cope up with it. Dr. Raju, HOD Department of Automobile and Dr. M. SShashidhara Prof & HOD Department of MCA The Oxford College of Engineering, Bangalore The Oxford College of Engineering, Bengaluru resolved the queries asked by the employees. Discussion Session was quite in teresting & helpful to resolve many doubts of the participants.

  
**PRINCIPAL**

The Oxford College of Engineering  
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